

# DC Electric

BOW & STERN THRUSTERS



THE WORLD'S MOST COMPLETE RANGE OF DC THRUSTERS

2020



THE ULTIMATE DIFFERENCE IN STRESS FREE DOCKING!

Worldwide sales and service



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more detailed information  
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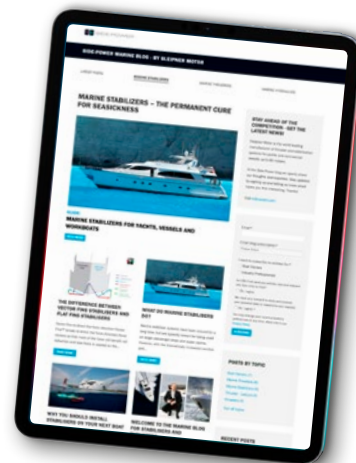
*"If there's one company that can claim overall leadership of the recreational boating market for bow and stern thrusters, it must be Norway's Sleipner Motor. Its Side-Power brand sells worldwide with a broad model range that covers almost every permutation of thruster technology for boats from 20ft to 160ft."*

**- Bob Greenwood -**

***IBI magazine***

Please visit our blog for more in-depth and helpful articles about choosing the right system for your boat, costs, installation considerations and tips.

[blog.side-power.com/en](http://blog.side-power.com/en)



**Sleipner**  
since 1908



## Dear boating lovers,

Let me start by thanking the many boat owners and the world's leading boat builders for their trust in our products and us. Our market leading position has made it possible for us to keep investing in technologies for the future and continuous improvements of the products.

At Sleipner we are never totally satisfied with anything, so we always seek better solutions. We continuously make improvements in existing products while also looking into the future needs and wishes so that we can create the innovations to make boating even better in the future. We firmly believe that in order to be the best at something, you need to stay focused, have the right attitude and control all areas of the product, from the initial design phase, through production, to the aftersales service. We therefore have our full value chain in Norway, from where we develop, manufacture, sell and support our products. And if you should have a problem with one of our products, a world-wide service team will be ready to assist you. Made in Norway and made by Sleipner Motor shall be synonymous with high quality and products you can trust to provide practical and distinct advantages over time for you as a boat owner.

Going into 2020 we are about to reveal our eVision to the world. This project has kept many of our 30 product engineers very busy for the last three years, and we are very proud to have developed from scratch the first ever purpose designed electric motor for marine thruster use. Our eVision is way more than this series of high-tech electric motors, they are just the first step in us doing our part for more sustainable and energy efficient boating. eVision is also about better and more integrated products and functionality, communicating with other products onboard to make your boating more efficient, comfortable and easy to operate. The eVision project demonstrates our commitment to go above and beyond the market norms and I would like to extend my sincere thanks to the boat builders who have contributed with their insight into the future needs of the marine industry and our team who have contributed with their competencies, creativity and dedication. Thank you all!

I hope you enjoy looking through this years Side-Power catalogue. We will never be cheapest, but I can promise you that when purchasing our Norwegian made Side-Power products, you will get a reliable, high quality and safe product, tested and approved by the world's most quality conscious boat builders and boat owners for decades.

I wish you all a good and comfortable boating season in 2020!

*Ronny Skauen*



It is no secret that the most stressful part in boating is being in close quarters to other boats. Maneuvering around crowded marinas and anchorages is a challenge for even the most skilled operator. Add wind, current and ever increasing crowds, maneuvering with confidence is the only way to keep your experience a happy one. Thruster systems were developed to allow more confident control of a vessel under any conditions and have become a virtual necessity in today's marine industry. As technology has improved, thruster systems have become ever more useful with improved functionality and performance. All along, Side-Power has been at the forefront of thruster development and performance.

Side-Power DC thruster systems are designed with the end user in mind. Reliability, performance and world wide support are critical to today's owner and Side-Power has focused on these during all phases of product development and sales.

# The boat builder's choice



Leading boat builders all over the world choose Side-Power for performance, reliability, ease of installation and unrivalled safety features. This commitment to quality and product development has made the Side-Power range of thrusters the benchmark in the industry.

## Performance

The high performance of a Side-Power thruster is a result of our continuous efforts in product development and testing.

- propulsion technology know-how
- lightweight composite propellers
- purpose-built high power electric motors
- streamlined gear-house design

## Installation

Based on our experience and cooperation with major boat-builders we have designed our systems to ensure it is easy to install a Side-Power thruster correctly.

- compact-sized units
- "Plug & Go" electric wiring
- easily accessible battery cable terminals
- easy installation of control panels
- fast and safe propeller mounting with locknut
- professional and solid GRP/composite stern thruster kits
- easy access anodes
- easy fit sealed gear legs

## Safety & Reliability

The safety of the boat and those on board is our utmost priority. All Side-Power thrusters include standard features that protect against operator errors and technical problems, minimizing potential consequences. Side-Power thrusters are purpose built for professional use with no compromise on quality.

- overheat protection of electric motor
- mechanical protection of drive gear
- self-locking "high pressure" contacts
- extra wear and heat protection of internal wires
- non conductive and self extinguishing solenoid covers
- control panels have child safe On/Off (instant On) and automatic deactivation timed from last use
- in-house manufacturing, assembly and quality control
- 2-year limited warranty



# Side-Power benefits - the result of over 30 years of



Electric motor developed by Side-Power for maximum performance and efficiency in real life onboard conditions. Details increasing safety and ease of installation are standard.

Thermal switch prevents overheating

Easily accessible power terminals

Contactors developed by Side-Power for extended main solenoid lifetime

Closed solenoids to prevent dust and pollution on contacts



Patented IPC system. Side-Power thrusters come standard with an integrated processor, protecting the unit against operator errors and technical problems.

Compact streamlined gear-leg minimizes water resistance and reduces cavitation

Prefilled gear-leg for easy installation and less maintenance. High quality oil for the longest possible lifetime

Automatic delay between change in drive direction to protect motor and gear-leg

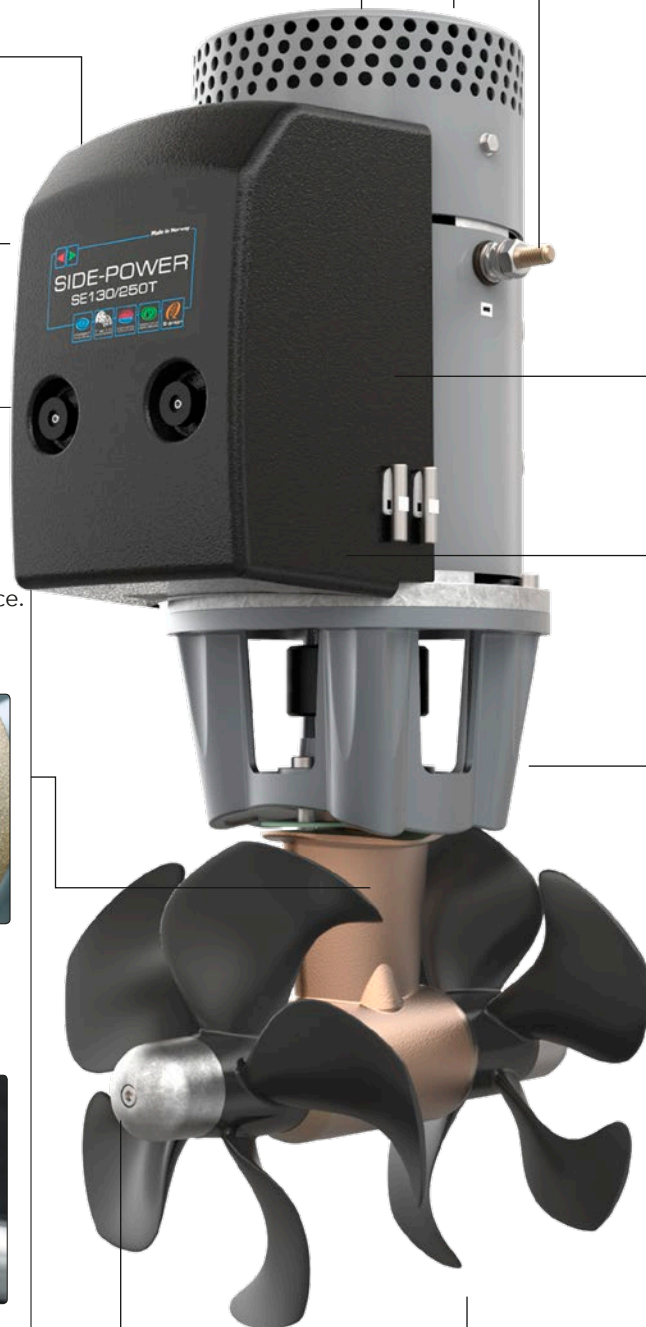


Hardened spiral cut gears for extended lifetime, low noise and a more compact gear-leg design

Gear-leg galvanically separated from electro motor to protect immersed parts from accidental short circuit or current leaks



CNC machined and assembled to perfect tolerances, using high end purpose made components ensures extended lifetime for professional use.



Anodes outside propellers for easy access and replacement

Composite Q-prop propellers for maximum efficiency and minimal noise.

Lightweight, sturdy and non-corrosive - perfect for thrusters of all sizes.

# development of tunnel thrusters



<p>The child safe on/off system minimizes the risk of accidental or unintentional operation.</p>	<p>While other joysticks might appear similar, the unique Side-Power joysticks are made of fully UV protected silicon based rubber to ensure long term reliability.</p>	<p>Compact sized and modern styled control panels with hidden screw heads.</p>	<p>The round cut-out hole, the pre-fitted seal and easy front mount with hidden screws ensure fast and flawless installation.</p>

<p>Single propulsion</p>	<p>Twin propulsion</p>	<p>Twin counter propulsion</p>	<p>Q-prop Upgrade kit available for older models</p>

# Side-Power features



- Noise reductions of up to 75% measured in controlled environments
- The expected and tested normal noise reduction in "average installations" 20-40%
- Upgrade kits are available for most "SP" series thrusters with special adaptors



- Provides delay between drive directions
- Monitors solenoid functions to reduce the chance of solenoid lock-in
- Will stop the thruster in case of a locked-in solenoid, without extra user action and even without controlling a main switch.



The thruster gear leg is filled with oil from a remote reservoir located above the waterline. This generates overpressure, making an effective seal against water intrusion in the gear leg.

- Separate oil reservoir placed above the waterline.
- Allows easy access for oil changes
- Having the advantage to be able to change oil in units used commercially, with hundreds of running hours per year



Sealed gear leg with long-life "mechanical" seal where highly polished ceramic and carbon surfaces form the only moving sealing surfaces, ensuring protection against damaging water intrusion into the gear leg. Pre-filled with special gear oil for lifetime lubrication.

- "Mechanical" seals with surfaces of ceramic and carbon for ultimate security against water intrusion



## SINGLE PROPELLER

A properly engineered single propeller system will be the most energy efficient thruster. Its compact design fits easily into narrow bows making it the perfect match for our smaller models. With more than 60.000 single propeller thrusters in use, the Side-Power single series system has proven its reliability.



## TWIN PROPELLERS

The twin propeller system can give more thrust than a single propeller system in the same tunnel diameter. This is our choice for our mid-range models where high thrust is required in a small tunnel diameter. Due to the compact design and high performance, the twin models have become the thrusters of choice among boat builders around the world.



## TWIN COUNTER ROTATING PROPELLERS

Two counter-rotating propellers can give the most thrust at a good performance ratio in a minimal tunnel diameter. This system is used in our larger thrusters for maximum power. The TC models are the favourite thrusters among leading boatbuilders for their high-end yachts.



The gearhouse / drive legs of most Side-Power DC Electric thrusters are now fully galvanically isolated / separated from the electric motor and motor bracket. This ensures that even if there is an accidental short circuit or a current leak for other reasons, the immersed parts are not effected as they could be with direct electric contact.



To provide reliable and safe thruster installations in more boats, we offer modified versions of our DC electric thrusters in watertight housings for use in stern and other locations that may get wet or be exposed to gasoline fumes. These thrusters are fully ignition protected (ISO 8846) for use in boats with gasoline engines. They have a hermetically sealed composite housing around all electric parts. This provides the ignition protection as no gasoline fumes can enter and be ignited by sparks.

The other advantage is that the electric parts that could be damaged by water are also covered and protected, making these thrusters the ideal choice for other stern thruster installations where it is difficult to ensure that the thruster will always remain dry.



## S-LINK

S-link is a "CAN" based control system with full intelligent communication between all units in the system, much like a computer network.

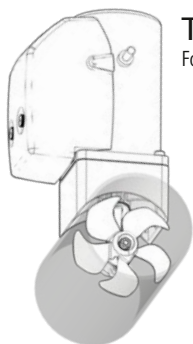
Main advantages include:

- Round, compact and waterproof plugs with unique keying and color coding to avoid faulty hookup
- Unlimited number of commands or information transfer on a single cable
- User feedback at panel
- Intelligent troubleshooting.



## PROPORTIONAL SPEED CONTROL

A DC Speed Control system contains three main elements - proportional control panels, a power control unit and a DC electric thruster - all tied together with the new S-link control system. The thrusters used in a speed control system are almost identical to the familiar SE range of DC thrusters, the only difference being the addition of a temperature sensor and a new electronic control box. All mechanical and main electric parts are from the well proven thruster range produced by Side-Power for many years. All 12 & 24 volt DC electric thrusters produced by Side-Power can be enabled for DC Speed Control by authorized Side-Power service personnel, even the oldest models.



## Tunnel sizes:

For more information, see p. 30-31

Ø in  
mm • inches



110 • 4.33



125 • 4.92



140 • 5.51



185 • 7.28



215 • 8.46



250 • 9.84



300 • 11.81





# DC Electric thrusters

To enable the most safe and easy installation as well as the best possible performance for a variety of boats and usages, Side-Power thrusters are offered in several versions to satisfy all requirements.



## SE series tunnel thrusters

The standard bow and stern thruster series are the base for all our extensive range of DC electric thrusters. They are fitted in a tunnel through the bow, or into our stern tunnels to use as stern thrusters. The electric motors, solenoids, patented IPC control system and the mechanical parts of the propulsion system are all totally custom designed and built, utilizing the extensive experience gained through years of leadership in the global thruster market. Page 12 - 13.



## IP versions for demanding environments

The IP - ignition protected - versions are equipped with a hermetically sealed cover around the motor and switch gear. This means that it is safe to use in gasoline boats or other areas where there is a risk of explosive fumes as well as excellent for installation in wet areas (not for submerged installation). Can be used for both bow or stern applications. Most models in both the SE and SEP series are available in IP versions. More information page 13.



## SR series retractable thrusters

Our retractable thrusters are excellent for use as bow or stern thrusters in boats with shallow or flat bottomed hulls, or where a tunnel opening in the hull at all is not desirable. Designed in true Side-Power spirit with reliability and durability as main factors, they are exceptionally sturdy and compact with the same high performance as all other Side-Power thrusters. Unique advantages by use of the latest technology including our S-link intelligent bus control provides a further benefit in use and control for the operator. Available also as speed control versions with the designation SRP. More information on page 14 - 15.



## EX and SX series externally fitted thrusters

Side-Power offer an extensive program of externally fitted thrusters. The EX and SX series is a practical and efficient solution for those who cannot fit a tunnel thruster, or as an externally mounted stern thruster. Exceptionally easy installation is a bonus with the EX and SX thrusters. More details on page 16 - 25.



## PRO series speed controlled thrusters

The PRO series are basically standard thrusters with the addition of the PRO Proportional system. Providing even more accurate control by fully regulating the power of the thruster as well as providing even longer run times, this is the latest in DC electric thrusters. The noise reduction and automatic "Hold" function are further benefits provided by the PRO series. More details p. 26 - 29.

# Planning your system

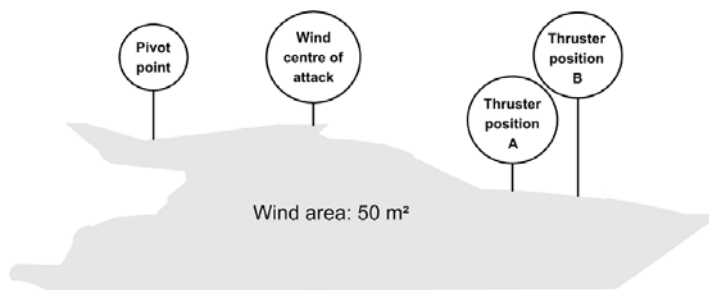
By definition, any thruster will to some extent do a job in any boat. The key is to ensure that the chosen thruster will do the job you want it to in your boat. This is one of two main factors deciding the right thruster size for each boat.

Today most pleasure craft over 35' have a bow thruster as standard equipment which normally will meet the expectations of most customers when using the boat under normal weather conditions. The sizes used by the boat builders will vary depending on the boat's intended usage and price level. In today's production boats, the typical thruster will push the boat's bow against a direct side wind of 21-23 knots. Some custom built or very high end boats may have a high power bow thruster that pushes the bow against a direct side wind of 24-26 knots. For boat owners that use their boats in more demanding conditions or have, for example, a strong current in their local marina, or for other reasons require very high performance, many boat builders offer upgrades to a more powerful thruster system. While most pleasure crafts will have ample power in most conditions when the thruster can push the bow against a direct side wind of 25-27 knots, the PRO series thrusters with "DC Speed Control" system will allow for even more powerful thrusters to be used comfortably.

## Example

If you have a 45'/13.5m boat, you have 4 thrusters to choose from within "normal" sizing. If your boat does not have a lot of wind area and you use it mostly in good weather conditions, you can choose the least powerful thruster, the SE80 in a 185mm tunnel. If you want to keep the  $\varnothing$ 185mm tunnel dia, but require more power, the SE100 is a good choice. If you have room for a larger tunnel diameter, there are models in both  $\varnothing$ 215mm and  $\varnothing$ 250mm tunnels that are suitable for this boat size, so there are many options.

*Please note that generally, a larger tunnel diameter will be more energy efficient and generate less noise.*



Thruster model	SE130/250T	SE170/250TC
Thruster position A	21.2 kn	23.9 kn
Thruster position B	22.4 kn	25.2 kn

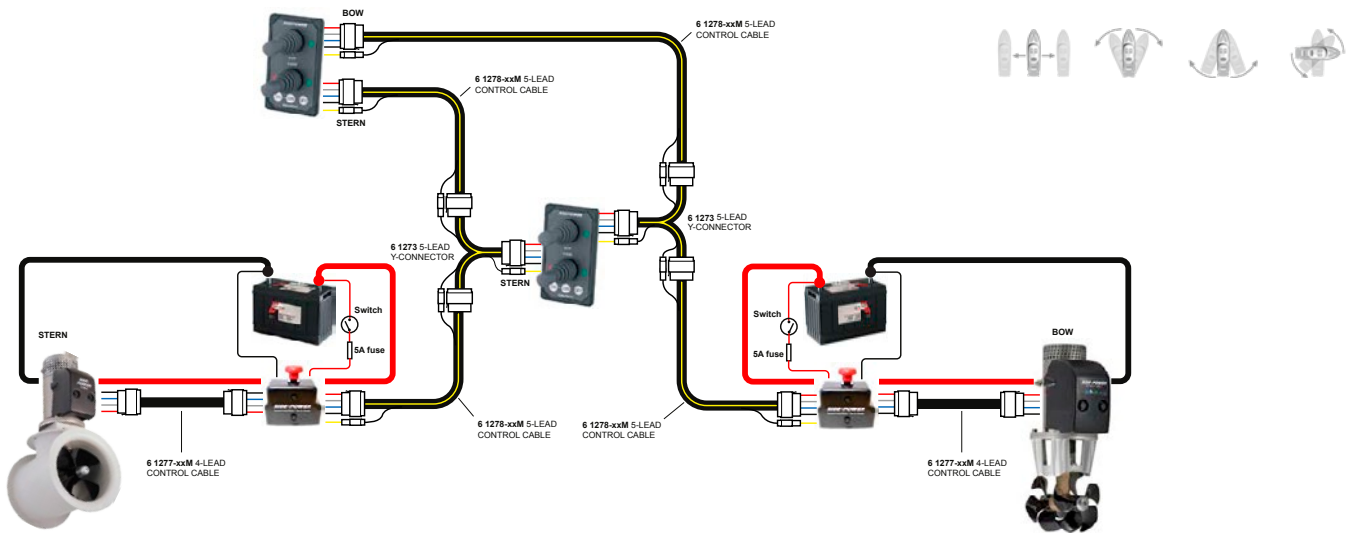
*The example shows the different wind speeds that two different thruster installations can counter and the increased leverage gained when the thruster is positioned further forward.*

## Conclusion

The two main factors that decide correct thruster sizing are:

- wind area of the vessel
- boat owner's performance requirements

Against most beliefs, a stern thruster does not require more thrust to give the same effect as the bow thruster. The reason for this is that the stern thruster is mounted outside the hull, thereby further from the boat's pivot point when using the thruster and thus gets more leverage. Depending on boat type and wind area of the boat, same size or the model below will, for most, be a good match to the bow thruster, given that the bow thruster is dimensioned correctly in the first place. However, if there are obstacles in the water flow, to and/or from the stern thruster, more thrust might be necessary to match the bow thruster.



## A complete thruster system

There are several components in a complete system for your boat; besides the thrusters and tunnels (bow or stern or both, you will need control cables, main switches (automatic or manual) fuse and fuse-holder, control panel(s) and main power cables. Even a radio remote is a normal part of a thruster system today.

To simplify installation and further increase the safety, we recommend using the original Side-Power Automatic Main switch which also has a built in fuse, reducing the number of necessary components. Where the Automatic Main switch is used, you need a 5 lead control cable between the panel and main switch, while only a 4 lead is needed to the thruster or if a manual or other auxiliary main switch and separate fuse is used.

The powerful electric motors used on the thrusters require a good electric power supply for safe operation and to achieve the desired power. Thereby, both the main power cable sizes and the available battery capacity are important. It is the actual voltage, delivered at the thruster when it is running, after voltage drop both in the batteries as well as through the cables, main switch and fuse, that determines the actual power of the electric motor, and thereby the possible thrust. So, getting this right will be important for your product satisfaction. It is also important to remember that different types of batteries have different capabilities and specialties, and what is important for thrusters is the cranking capacity, the batteries' ability to deliver a high current for a shorter period of time.

## Example guidelines for tunnel bow thrusters

Boat size: (m)	6	9	12	15	18	21	24	27	30
Ø 110mm	SE20 SE25								
Ø 125mm	SE30	SE40							
Ø 140mm	SX35	SE50 SX50							
Ø 150mm	EX35S	EX55S	EX75S	EX95S	EX110D	EX180D			
	EX25C	EX40C	EX55C	EX70C					
Ø 185mm		SE60	SE80	SE100	SR80	SR100	SRL80	SRL100	SRV80
			SX80	SRV100	SX100				
Ø 215mm			SE120	SE150					
Ø 250mm			SE130	SE170	SE210				
			SRL130	SRL170	SRV130	SRV170	SRV210		
Ø 300mm					SE250	SE300	SRV250	SRV300	
Boat size: (ft)	20	30	40	50	60	70	80	90	100
	SE Series	EX Series	SR/SRL/SRV Series	SX Series					

# SE Series tunnel thrusters



Single propulsion



Twin propulsion



Twin counter propulsion

The Side-Power SE Series have during a time period of nearly three decades been installed into more than a 150,000 boats world wide, operating in every condition planet earth has to offer.

The standard bow and stern thruster series are the base for all our extensive range of DC electric thrusters. They are fitted in a tunnel through the bow, or into our stern tunnels to use as stern thrusters. The electric motors, solenoids, patented IPC control system and the mechanical parts of the propulsion system are all totally custom designed and built, utilizing the extensive experience gained through years of leadership in the global thruster market.

The fact that we still deliver spare parts such as zinc anodes and shear pins to 25 year old thrusters, is to us a company statement to our total commitment to quality and longevity of our products, past and present.

All Side-Power thrusters are engineered, manufactured and assembled at our ISO certified factory in Norway, allowing full quality control in every step of the production process necessary for a high performing product. When choosing Side-Power thrusters, you are making the same choice as an overwhelming number of the world's leading boat builders today.

There are just some parts of the boat that should never be compromised - those are the parts we make!



Most Side-Power tunnel thrusters can be delivered in PRO version with the DC speed control PPC520 & 820 power control unit for ultimate control and single handed docking.





# Ignition Protected versions



Single propulsion



Twin propulsion



Twin counter propulsion



For several years, Side-Power has manufactured ignition protected thruster models. Now, the second generation is here with added features and many more models.

## High safety standards

To provide reliable and safe thruster installations in more boats, we offer modified versions of our DC electric thrusters in watertight housings for use in stern and other locations that may get wet or be exposed to petrol fumes. These thrusters are fully ignition protected (ISO 8846) for use in boats with petrol engines. They have a hermetically sealed composite housing around all electric parts. This provides the ignition protection as no petrol fumes can enter and be ignited by sparks. The other advantage is that the electric parts that could be damaged by water are also covered and protected, making these thrusters the ideal choice for other stern thruster installations where it is difficult to ensure that the thruster will always remain dry.

## Ignition Protected Features:

- Certified to ISO 8846 Ignition Protected standards.
- Water Proof (not for submerged mounting).
- Tinned plated brass terminals
- Manufactured, tested and delivered as a ready sealed unit, ensuring that the installer does not have to fit any other parts that can jeopardize the hermetical seal.
- Supplied with plug and go control cable.
- Ignition protected housing can be opened and thereby retains serviceability of components inside the enclosure.
- Available as SEP-IP versions with DC Speed Control.

# SR Series retracting thrusters



SR

SRL

SRV

For boats that cannot fit a tunnel thruster or do not wish to have an external thruster under the boat, then a retractable thruster is the solution. Side-Power have designed a product range that is focused on practical sturdiness, uncompromised safety and quick deployment.

The retracting thrusters are generally built with the same high safety standards as all Side-Power products, and incorporate the important benefits introduced with the SE-series thrusters. Our focus on safety is a totally integral part of the product design so that everything from build quality to ease of installation is thought of to ensure long term reliability. There are three versions of the retractable thrusters, one model design for direct mold-in, and two designed to be mounted on a flange. The flange can be a mold-in base from Side-Power, or the boat builders can manufacture their own base in materials suited for their hulls or as part of their basic hull design.

The flange mounted models have a thruster unit in a casing that will be bolted to a base. This allows for easier installation in hulls made from different materials, as well as in series production where you do not need to mix laminating and engineering type jobs.

The 185mm tunnel diameter thrusters use one fast and powerful actuator, while the 250mm tunnel diameter models have two actuators to handle the increased forces with the same exceptionally fast deploy/ retract operation time.

The unique design of the underwater mechanism has only a few, but very sturdy parts that all contribute to the stability of the moving assembly. The unit is also designed to keep the thruster as compact as possible while enabling the safe use of heavier motors on the more powerful units. The vertical installation of the motors also reduce the impact forces on the assembly in extreme waves compared to motors fitted at an angle.

If height limitation is an issue in your vessel, please have a look at the SRL series, which has the most compact build height on the market.



All Side-Power retractable models use the S-link "CAN" based control system with full intelligent communication between all units in the system, much like a computer network.



All Side-Power retractable models can be delivered in speed controlled PRO versions.



### Specific Retracting features

- Plug and play S-link two way communication control cable wiring.
- Motor assembly rigid mounted on retracting casing - no moving parts during retracting operation.
- Compact size.
- Reliable retracting mechanism, avoids sticking.
- Fast deployment time.
- Easy to use control panel with status feedback from thruster.
- Available as SRP versions with DC Speed Control.

### Mould-in base (not included)

- SRF-185-GRP Mould in mounting base for 185mm SRV models - ISO Polyester
- SRF-185-GRV Mould in mounting base or 185mm SRV models - Vinylester
- SRF-250-GRP Mould in mounting base for 250mm SR models - ISO Polyester
- SRF-250-GRV Mould in mounting base for 250mm SR models - Vinylester

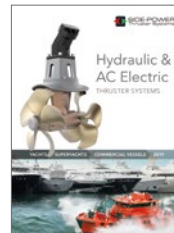
Side-Power can also offer a light weight Carbon version for a selection of our retract thrusters for demanding high-end boat-builders on request.



CEO at Hallberg-Rassy; Magnus Rassy, about the new HR412 with dual PRO series retractables from Side-Power.  
[www.youtube.com/watch?v=69GpzXrdpmw](http://www.youtube.com/watch?v=69GpzXrdpmw)



"I could not picture myself buying another boat without this system!" says boat owner Bernt Ellingsen, Delphia 47 with dual PRO series retractable thrusters.  
[www.youtube.com/watch?v=NVvasVGSha0](http://www.youtube.com/watch?v=NVvasVGSha0)



#### Hydraulic version

The 185mm SRV and the 250mm SR models are available in hydraulic versions for those who prefer this powering option for longer run times or in situations where the height of a DC electric version is too high (see measurements on page 28).

# EX Series external pod thrusters

Quick & easy retrofitting



EX SINGLE



EX DUAL



EX COMPACT

The externally mounted pod-based EX-series is a practical thruster solution for displacement and semi-planing boats between 6 and 18 m length, independently of hull form, hull material, propulsion and depth. These pod thrusters are an excellent choice where a tunnel bow thruster cannot be fitted, or as an extremely compact stern thruster.

The EX thrusters can be used in all types of vessels such as: sailing boats, catamarans, motorboats and houseboats made out of steel, aluminum, wood or GRP. The flexible mounting at the extreme bow of the boat hull allows a deeper position underwater which creates an optimal leverage compared to conventional thrusters. EX thrusters can, therefore, move larger boats by using nominally less power than conventional thrusters.

### Adapter

Made of hard rubber, optimizing the flow characteristics and ensuring tight and simple mounting



### Hollow shaft with cable routing

Made of steel with neoprene and rubber fittings to seal connection and perform as suspension as well

### Housing

Extreme robust, special coated aluminum housing. Seawater-resistant and redox-free

### 3-Blade Vector-Propeller

Purpose-designed to ensure highest efficiency

### Electric motor

Purpose-designed and special built motors guarantee outstanding performance. Up to 5 minutes nonstop operating time.



Optimally streamlined design



# Construction benefits



## Optimally streamlined design

Hydrodynamic shape, very short flow-channel and ideal placement reduce the water resistance to a fraction compared to conventional systems. There is no perceptible loss of speed.



## Easy installation

Requires drilling of only three small holes to assemble, which are sealed tightly with a special rubber sealant. No fiberglass work is necessary.



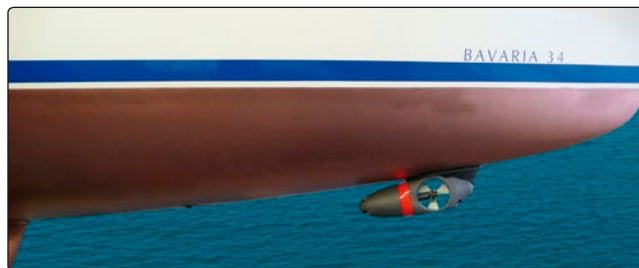
## Long duration

The external placement of the unit gives a more efficient water cooling and allows much longer duration per cycle of the unit than with traditional bow and stern thrusters.



## Optimal efficiency

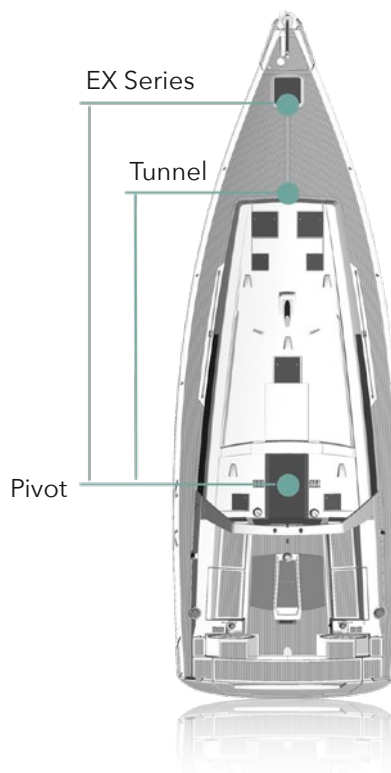
Optimal efficiency results from a shorter transverse channel and ideal leverage which is created by deeper and more distant positioning away from the pivot point. Typically giving up to 40 % higher efficiency than with conventional systems.



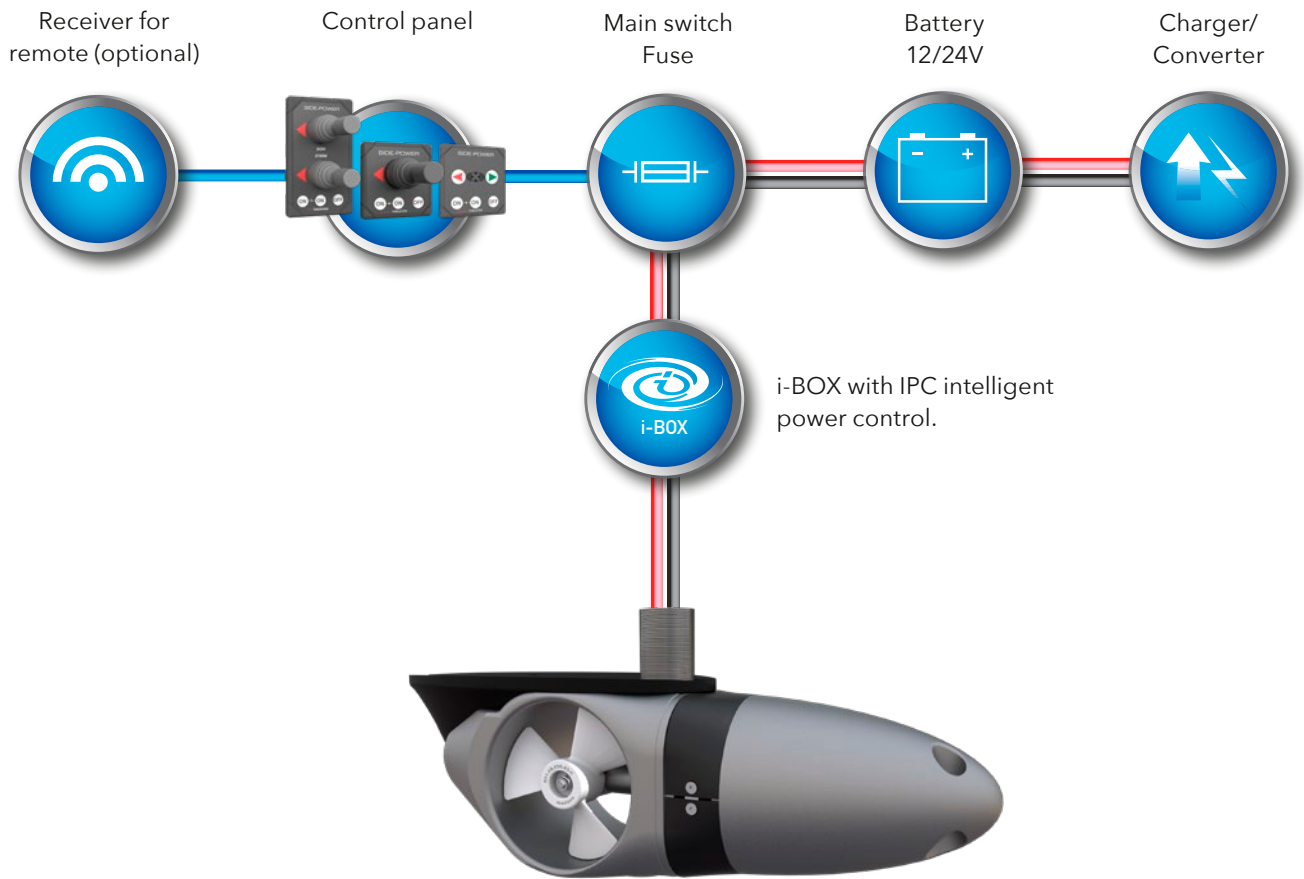
## The experienced performance can be as high as 1.4 times the actual thrust.

- Due to the installation position more towards the very bow of the boat (1 - 1.5 m) the leverage increases by a minimum of 20%.
- Long and small transverse tunnels reduce thrust, on an average length of 60 - 70 cm, around 20%.
- Installation depth is 15-20cm (minimum) deeper under water (= no cavitation)

**The total of these three main performance benefits results in a higher efficiency of at least 40% compared to conventional thrusters! It is important to notice this, when comparing to tunnel thrusters.**



# EX Series system overview



## EX-Series accessories



**Basic installation kit** with 2 mounting bolts, complete with sealing kit. (For EX COMPACT)

Item code:  
50151



**Installation kit** with streamline rubber adapter, complete with sealing kit (not for COMPACT)

Item code:  
50152



**GRP Adapter** for bow installation on V-shaped hulls.

Item code:  
50155



**Mooring protector** made of stainless steel for EX-Series motor housing, incl. fixing kit.

Item code:  
50154



**Charger & voltage transformer 12-24V, 10 A**, including charging voltage control (VST).

Item code:  
50211

# SX Series external stern thrusters



## The efficient stern thruster option for boats with twin stern drives!

Side-Power now offers a complete external stern thruster assembly, specially designed for installation on boats with twin stern drives. It utilizes special cowls to enable good performance by diverting the water-flow past the stern drive legs, which normally blocks the waterflow and the thrust.

The units come pre-assembled, wired and sealed in the waterproof box, and only require a small hole into the boat's transom to attach the power and control cables. The cable connection points are fully sealed, so that it is Ignition Protected and can be installed in petrol powered boats.

This stern thruster option can also be the best choice for boats without stern drives, if the inside configuration of the boat's stern makes a standard thruster installation impractical.



*Also available in PRO versions with DC speed control.*



## New SX models - the next generation external thrusters

The brand new SX series are the world's most compact external bow and stern thrusters that fits where others won't and offer a number of attractive benefits for boat builders as well as retrofit installations. Its versatile installation possibilities and compact size make it a perfect choice for vessels where the inside configuration does not allow a standard thruster installation. Available in 35 and 50 kg thrust as On/off and PRO versions suitable for boats up to 11m / 37'.

As the Side-Power engineering team has accumulated a vast amount of know-how about externally mounted thrusters over the years, this knowledge has now resulted in a brand new generation of external thrusters. The new generation has been improved in virtually every component and engineered for a more effective manufacturing process in order to reduce production cost and thereby price. Further more, when used as a stern thruster, these models will be the most compact ever. So, if you could not fit a stern thruster before, it might be a good idea to check out our latest generation of external thrusters.

Key design features:

- Ease of installation with no GRP work necessary
- Energy efficient and long run times
- Versatile installation fits many hull shapes
- Available in **PRO** version with variable speed control
- Patented Intelligent Power Control protection as standard (IPC)



*Also available in PRO versions  
with DC speed control.*



# Configurations



1) SX stern standard

2) SX stern w/ protective grids

3) SX stern w/cowls (Adjustable deflection direction)

4) SX Hydropod with hydrodynamical waterflow cover allows for bow thruster usage

The new SX models are available in four configurations that allows a vast array of installation options with 35 or 50 kg's of actual thrust at 10,5 volts.

## 1) Standard stern thruster

The most compact stern thruster on the market. Minimal height and width requirements.

## 2) Stern thruster with propeller protection grids

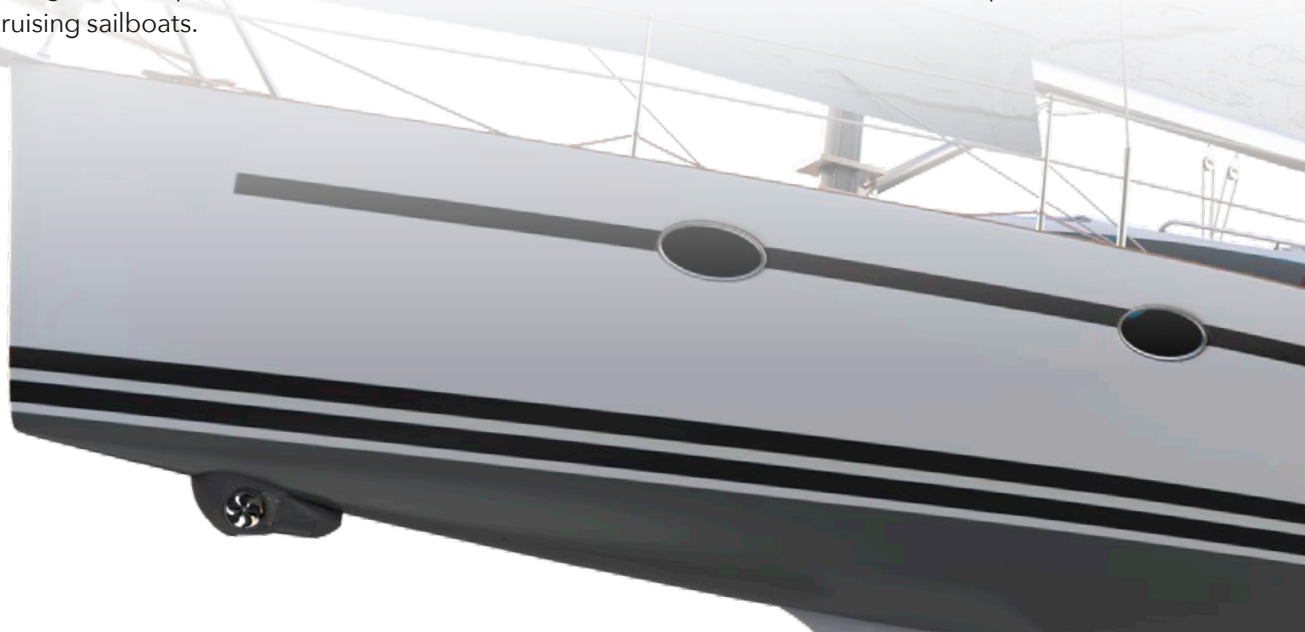
An optimal solution ensuring peoples safety during water sport activities or for vessels used in waters with debris or drifting objects.

## 3) Stern thruster with cowls

Many vessels have a hull design or equipment on the transom of the boat that might disturb the water flow to and from a stern thruster, thus making it less efficient. With the adjustable cowls, water flow can be directed to be less disturbed, obtaining a higher level of efficiency or allow for a very shallow installation closer to the waterline.

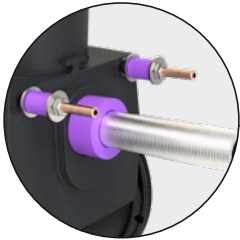
## 4) In-flow configuration as bow or stern thruster

By adding the Hydropod low drag cover, the new SX models can be mounted under the hull in the water flow for low- and mid-speed vessels. The optimal design adds minimal drag and will in most installations not be noticeable. The in-flow configuration is perfect for boats where it is difficult to fit a tunnel thruster or for example as a stern thruster for cruising sailboats.



# New SX models - the next generation external thrusters

Easy and quick installation:  
only three holes necessary  
for installation



Shock and vibration absorbing sleeves on  
all hull connections for added safety and  
reduced noise.

Integrated PMDC motor for  
reduced size and optimal  
cooling

All external stainless parts  
galvanic isolated from  
wetted aluminum  
surfaces

Full aluminum body. Various  
alloys used for specific  
purpose. Hard coated and  
treated for optimal corrosion  
protection

Sealed gear house  
- no oil change needed

Optimized tunnel geometry  
for better performance and  
reduced noise





# Benefits - the world's most compact external thruster

## Ultra compact

Fits where others won't.

## Quick and easy installation

Requires drilling of only three small holes with a minimal foot print on the hull. No fiberglass work is necessary. Compatible with standard Side-Power connections, control panels and accessories.

## Versatile installation

The design of the new SX models allows for a large range of different installations as bow and stern thruster for both motor boats and sail boats.

## Intelligent Power Control

Deliver standards with Side-Power's patented IPC:

- Provides delay between drive directions
- Monitors solenoid functions to reduce the chance of solenoid lock-in.
- Will stop the thruster in case of a locked-in solenoid, without extra user action and even without controlling a main switch.

## Long run times

The external placement of the unit provides a more efficient water cooling and allows longer duration per cycle of the unit than with traditional bow and stern thrusters. Even longer run times in PRO version when run at reduced speed.

## Optimal efficiency

Optimal efficiency of bow model results from a shorter transverse channel and ideal leverage which is created by deeper and more distant positioning away from the pivot point. Giving up to 40 % higher efficiency than with conventional tunnel.

## Safety

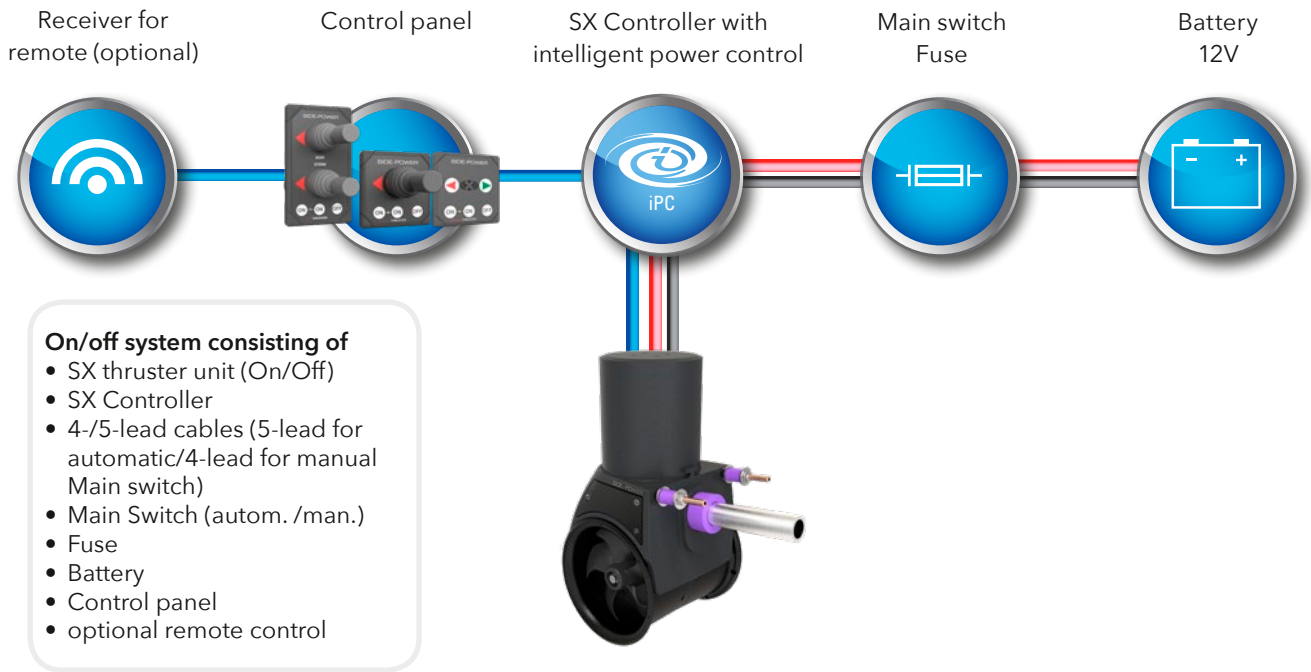
Ignition protection. Can be installed in stern locations/ on compartments with high octane fuels due to hermetically sealed housing. ISO8846 and UL 1500 certified. Galvanic isolation kit for metal/aluminium hulls and safety protection grids available as accessories.

## Very quiet

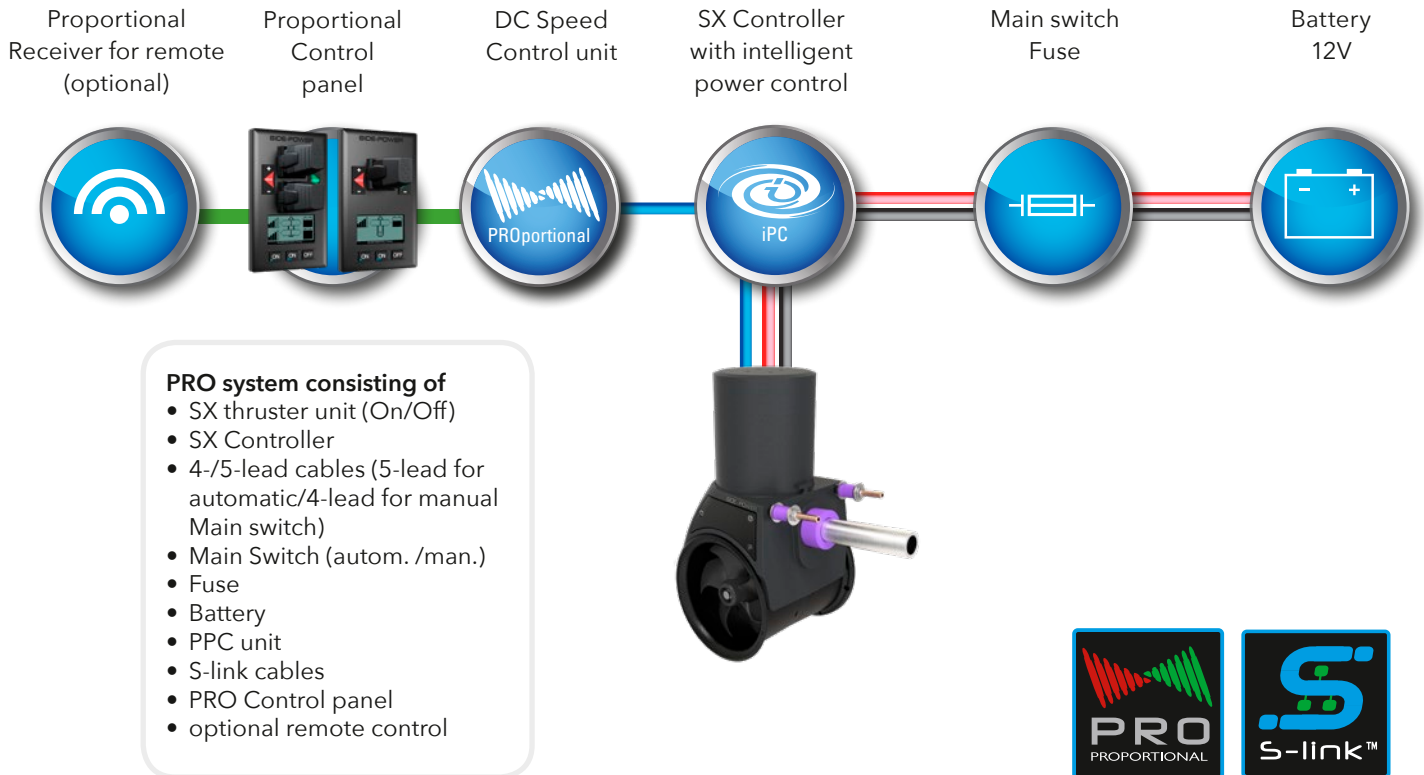
With a short and optimally designed tunnel, vibration absorbing sleeves on all hull connections, 5 bladed Q-pro and the fully submerged unit, the thruster operates remarkably quiet.



# SX Series system overview: On/Off



# SX Series system overview: PRO





# SX-Series accessories



## SX 140 Extender / Galvanic isolation for stern installation.

- Polyurethan spacer allows for easier installation in proximity to stepped and concave surfaces on the transom.
- Spacer functions as galvanic isolation for metal hulls.

## SX Controller

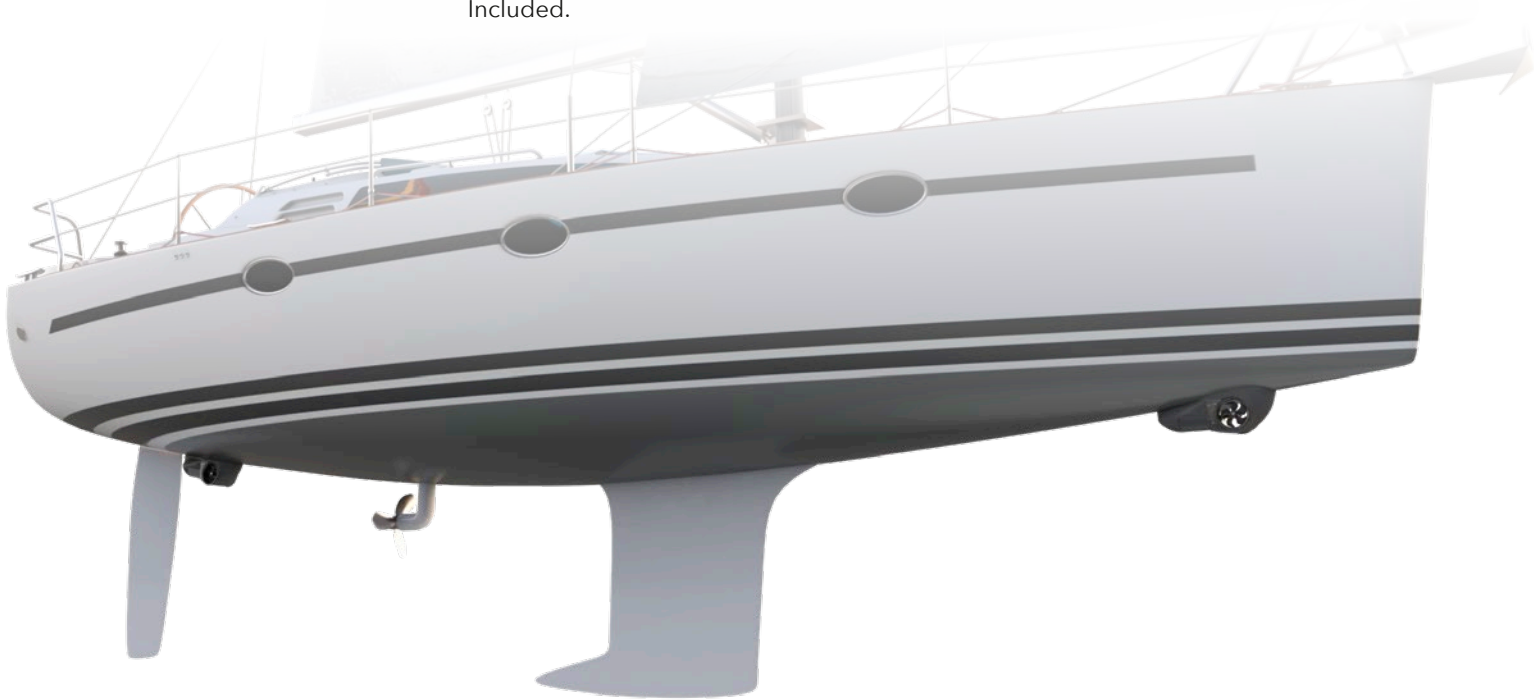
- Side-Power IPC system
- easy installation
- easy mounting
- little space requirements through compact measurements
- enclosure in rugged flameretardent ABS material
- for On/off and Pro models Additional PPC, S-link cables and Panel needed for Pro models. Own/seperate controller box available for each model. Comes with/ Included.

## Cowls

- made of reinforced UV resistant composite material
- easy installation and retrofit
- remove cavitation on shallow installations (more thrust, less noise)
- guide thrust away from flaps or stern drive
- Either preassembled from factory or as retrofit kit.

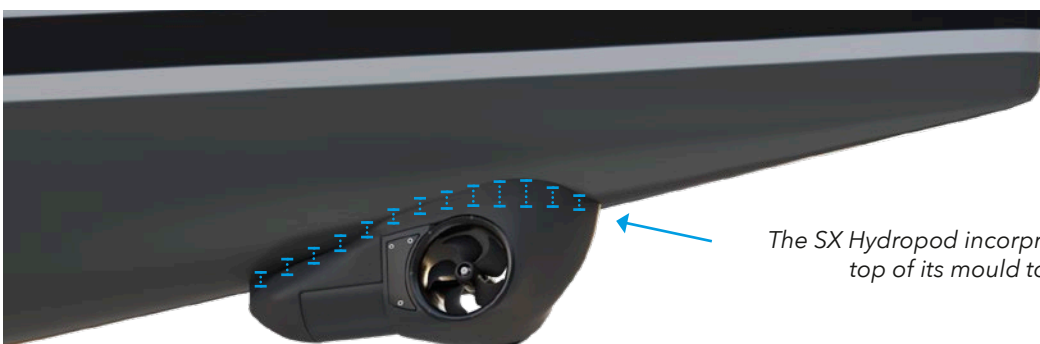
## Safety protection grids

- hydrodynamic shape to reduce resistance
- made of reinforced UV resistant composite material
- removable for cleaning and propeller service
- Either preassembled from factory or as retrofit kit.



*SX Hydropod with hydrodynamical waterflow cover*

By adding the Hydropod low drag cover, the new SX models can be mounted under the hull in the water flow for low- and mid-speed vessels. The optimal design adds minimal drag and will in most installations not be noticeable. For a typical sail boat cruising at 7,5 knots, the added drag is **less than 5kg**. The in-flow configuration is perfect for boats where it is difficult to fit a tunnel thruster or for example as stern thruster for cruising sailboats.



*The SX Hydropod incorporates an easy adaptable surface at the top of its mould to be easily adapted to the hulls shape during installation*



«It is so quiet that people don't think there are any thrusters on board!»

Mr. Magnus Rassy, CEO Hallberg-Rassy AB

## Go PROportional - put a throttle in your thruster!

With the introduction of proportional DC thrusters, Side-Power again raised the bar on what a vessel owner can expect from a thruster system. Combining known performance and reliability with total control of thruster power improves handling performance while eliminating much of the noise associated with standard on/off thrusters.

Increasing boat sizes and number of boats have outrun the harbor space for many years around the globe, making docking more difficult than ever. Easy maneuvering have become more important, making thrusters a standard fit in most boats, as they undeniably offer a great help while docking in challenging locations or in adverse weather conditions.

However, while docking in calm weather conditions, many boat owners find that using a 100% of the thruster effect is both unnecessary and create unwanted noise in an otherwise quiet harbor.

Most Side-Power thruster models can be delivered in PRO version with speed control and HOLD function for both bow and stern installation.



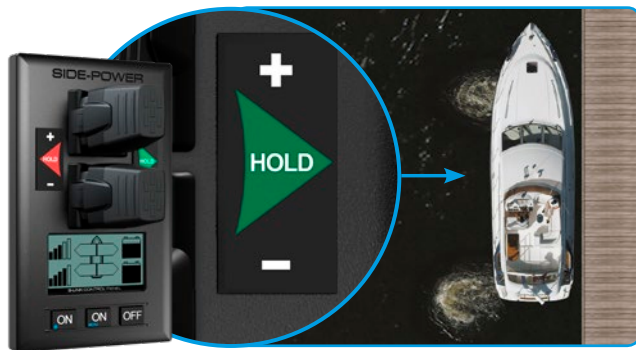


With many boat owners having previously had boats with under-powered thrusters, they now would like to have enough power in their thrusters to make sure that they perform well and do their job also in the worst conditions. To install a thruster system rated for the worst conditions is clearly advisable, as it is in these situations you need a thruster system the most.

But the down side of a very powerful system might be an undesirable abundance of effect in calmer docking situations. This is not really a huge problem for most, as you can also pulse the thruster, but this can also be both uncomfortable and noisy with a very powerful thruster in a quiet harbor. Considerate operators are thereby often reluctant to use them, adding unnecessary stress to the docking experience.

Side-Power PRO thrusters will be a totally different experience and provide a no compromise solution with fully speed controlled thrusters. Different from on/off thruster systems, where you will get a 100% thrust at once, a

proportionally controlled system starts at a lower RPM as you throttle on. This makes a huge difference as the softer acceleration creates a lot less cavitation in the tunnel, which is the main factor for reducing noise in a thruster.



As you can now choose the necessary thrust for any docking situation, docking in a quiet harbor does not need a lot of thrust and you will find that you can slip the boat into your dock almost without making a sound.

An additional benefit to putting a throttle in your thruster is that the heat development in a DC electric motor is much less when running at reduced power, practically leaving you the option of up to continuous usage below 50% effect, normally then just limited by the battery power available.

The extended runtime is put to good use in the unique Hold-function incorporated in the new PJC control panels. With the press of a button, the bow and stern thrusters will keep you alongside the docks, freeing you to yourself jump ashore and tie the docklines. The amount of thrust applied can be adjusted, and in addition the bow and stern thruster can be individually synchronized to get a balanced sideways motion - making single handed docking very easy indeed!

The PRO system is controlled by S-link and monitors important parameters such as temperature in both controller and thruster as well as thruster voltage - this monitoring will also enable greatly simplified troubleshooting for most issues ever seen with thrusters as it shows both actual voltage on the thruster as well as current draw.

The PRO system is controlled by S-link and monitors important parameters such as temperature in both controller and thruster as well as thruster voltage - this monitoring will also enable greatly simplified troubleshooting for most issues ever seen with thrusters as it shows both actual voltage on the thruster as well as current draw.

The Proportional joystick control panels feature a Back-lit LCD display giving instant feedback to the user. System status, amount of thrust & direction of thrust as well as remaining run time and battery capacity will be shown in real time on the display. Important user warnings and alarms will be given to the user both on screen and via audible signals.

- Full **proportional** speed control
- Allows **single-handed** docking
- Best choice for **joystick** interaction
- Wide range of **PRO** thrusters
- Unique **Hold-function**
- **Extended** runtime
- **Less** noise

A PRO system contains three main elements - proportional control panels, a power control unit and a DC electric thruster - all tied together with the new S-link control system. The thrusters used in a speed control system are almost identical to the familiar SE range of DC thrusters, the only difference being the addition of a temperature sensor and a new electronic control box. All mechanical and main electric parts are from the well proven thruster range produced by Side-Power for many years.



PPC520 & PPC820/PPC840

### PPC 520 & 820/840 Power Control Unit

- Plug and play S-link control cable wiring
- Easy to access, solid main cable terminals
- Easy to place as it can be located anywhere between the batteries and the thruster, also in areas requiring ignition protected parts
- Reliable solid state switching
- Thermal and over current protection
- Active cooling for continuous usage



### Thruster for PRO system

- Any Side-Power DC Electric thruster can be upgraded to PRO version
- Temperature monitoring through Power Control unit
- Increased directional solenoid lifetime because the solenoids will not switch with load
- IPC intelligence for extra safety



### PJC 212 Control Panel

- Plug and play S-link control cable wiring (waterproof plugs)
- Finger tip control with purpose designed joysticks
- Hold-function for easy docking, runs thrusters at selected power
- Back-lit LCD display with instant feedback
  - Amount of thrust & direction of thrust
  - Thruster temperature/remaining run time
  - Battery status
  - Selectable LCD colour & level for both night and day
  - System monitoring simplifies troubleshooting
- Interactive multilingual menus
- Built-in audible alarm "buzzer"

### Even more functionality by adding a Side-Power radio remote!

When a Side-Power radio remote is added to the system you get even more benefits from the speed control system. If you are docking alone - having the PJC panel automatically pushing the boat against the dock while you go put the mooring lines on, you might wish to increase the thrust on the bow thruster momentarily to make it really tight. Pressing the bow thruster button on the remote will then let you do this. You can also shut down the hold function without going to a fixed control panel by selecting to run any of the thrusters in opposite direction of what the hold function is doing.



# DC system PROportional upgrade

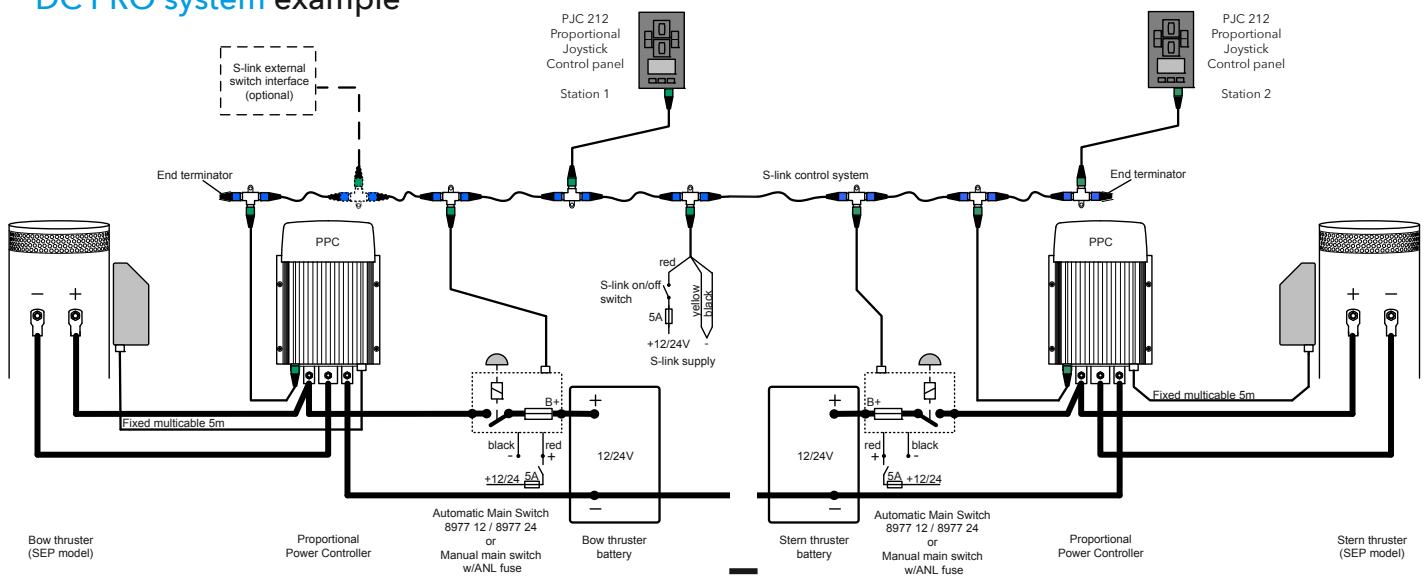


Most Side-Power DC thrusters can be upgraded to Proportional speed control. Side-Power offer upgrade kits which includes the necessary parts for upgrading the thrusters to be compatible with the PPC controller and PJC control panel. To upgrade, the thrusters need a new temperature sensor in the electric motor, an S-Link compatible internal cable kit and new S-Link signal cables which allow for the installation of the PPC controller and a PJC control panel.

When considering an upgrade, you might also want to consider installing more powerful thrusters, in order to fully enjoy the benefits of a speed controlled system, ensuring sufficient thrust under the worst conditions, as well as being able to silently slip into a sleeping harbour late at night with precisely the power needed for docking the vessel.

Your local Side-Power dealer can advise correct upgrade kits for your existing system.

## DC PRO system example



### "Easy does it with variable-speed thrusters"

"...Until now the luxury of adjusting how much thrust you use to manoeuvre a big boat in or out of a tight spot has been the preserve of expensive and bulky hydraulic thruster systems. Sleipner's new 12/24V system is a much more cost effective set-up and considerably more compact than a hydraulic system. It should also help resolve the issue of not being able to use an electronic thruster for long periods of time without overheating, because you'll rarely be using it on full power all the time..."

"...Using conventional DC thrusters, offering full power or nothing, we would have had to apply numerous bursts to keep it rotating. With the variable-speed system we were able to use a smaller amount of continuous thrust. Not only was this more intuitive, but it made for a quieter, more relaxed manoeuvre. The more power you want, the more you push the twin paddle switches..."

"...This means that like a hydraulic system it also has a hold function, enabling you to set and leave the level of thrust. It's a feature that short-handed skippers often rely on to pin their boats against the dock while they step off to secure the lines..."

"...The other big bonus is a remote control that allows you to operate both thrusters from wherever you chose, so you can take up station on the side deck and walk the boat in while keeping an eye on the gap..."



MOTORBOAT & YACHTING - NOVEMBER 2010

# Bow and stern tunnels



With the ever growing demand for increased performance, we continue to expand our offering of tunnel diameters to allow customers to choose more powerful thrusters in tunnel sizes that will fit in their boat. The latest additions are the 110, 140, 160 and the 215 mm tunnel. The 215 mm models, between the existing  $\varnothing$  185 mm and  $\varnothing$  250 mm sizes, are very important for boat sizes around the 50' / 15m mark, where we have seen that boats have become much more voluminous than before, requiring larger thrusters to achieve the same maneuverability.

We will continue to launch new tunnel diameters where appropriate to let our customers get the performance they want in their boats.

## Facts about tunnel sizes:

- Principally a larger tunnel diameter will always be more energy efficient than a smaller tunnel diameter for the same thrust. The factor is water speed, and this is decided by the amount of water you move through the possible opening which is the square area of the tunnel less the area blocked by the thrusters gear leg.
- The opening in the boat hull is not only the circular size of the tunnel diameter. Because the hull is angled, you get a much larger oval opening, and this makes a larger tunnel diameter more difficult to fit properly into the hull.

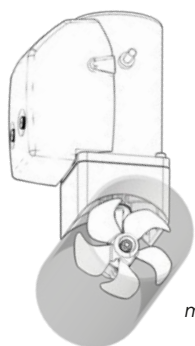


## Tunnels

GRP tunnels are available in several lengths for each thruster model. They are purpose built for our thrusters and provide ultimate strength, accuracy and osmosis protection to ensure an easy and safe thruster installation. The wall thickness is adapted to each thruster's power and boat size. Unlike most other thruster tubes, they are not just spun with a single tread, but in fact contains several layers of full rowing mat.

We also offer a selection of aluminum and steel tunnels.

*See price list or our web site for available lengths and dimensions.*



$\varnothing$  in  
mm • inches



110 • 4.33



125 • 4.92



140 • 5.51



185 • 7.28



215 • 8.46



250 • 9.84



300 • 11.81



## Stern tunnel kits

These transom-mounted tunnels are meticulously designed to enhance the performance of the thruster. Manufactured in fiberglass, they are extremely strong and durable. The complete installation is very easy and meets the high Side-Power standards. The additional cowls make it possible to allow a stern thruster installation in boats with shallow draft or obstructions on the stern.



## Stern tunnels & cowls:

Item code for thruster:	SE 30/40	SE 60	SE 80/100	SE 120/150
Stern tunnel kit	90124i	90052i	90086i	90135i
Cowls - short model	-	90075	90075	-
Cowls - long model	90126	90077	90077	90136

Item code for thruster:	SE 130/170/210	SE 250/300
Stern tunnel kit	90150i	90200i
Cowls - short model	-	-
Cowls - long model	90130	90220

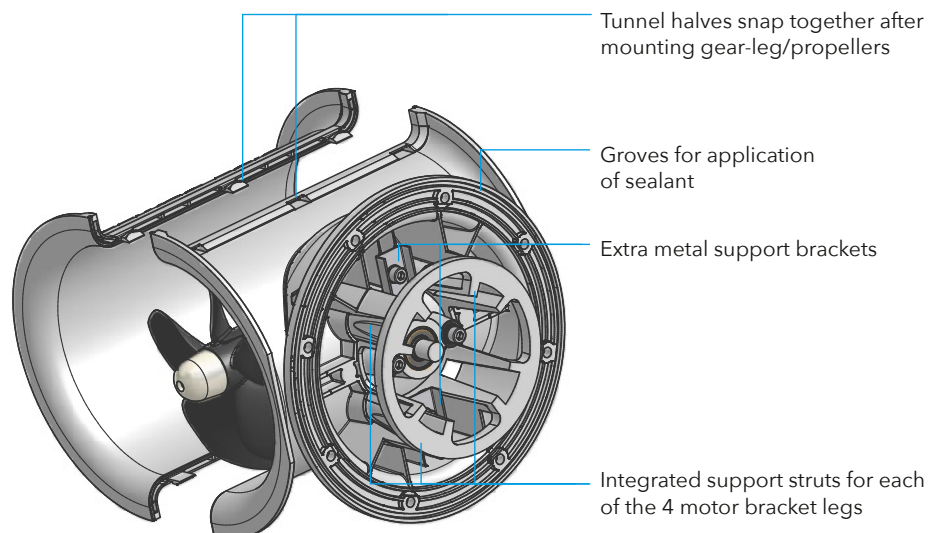


## Injection mould stern tunnels

Injection mould tunnels with extra safety features; 30% stronger and specific breaking point design. Available for 125mm, 185mm and 250mm tunnel diameter thrusters. Item codes 90xxxi.

The new 250mm tunnel features split tunnel assembly for easier installation and integrated support for thruster motor and bracket, eliminating the need for an external support strut inside the boat. The split assembly makes it possible to mount the stern thruster from outside the transom, saving time and heavy lifting within crowded spaces.

Item code 90150i

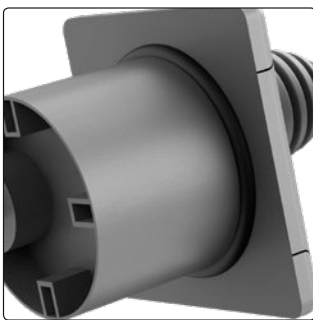


250mm stern tunnel with integrated support

# Control panels



Side-Power offers a unique series of «smart» control panels, an important part of the thruster system. Choose between our compact touch button, the popular joystick controls, the «docking» control panel with the most intuitive thruster control ever or the new exclusive round panel. Why not try the radio remote control for full mobility on board, being the perfect tool for short handed boating. Radio linked panels are also an option. Mix or match, the choice is yours!



## Easy installation

- round cut-out hole (std.instrument size)
- installs from front side
- pre-fitted O-ring seal
- multi-voltage (12 & 24V)



## Safety

- child-safe on/off system
- power / control light
- automatic deactivation
- easy operation



## Quality

- waterproof (IP65-front)
- UV safe
- CE -approved



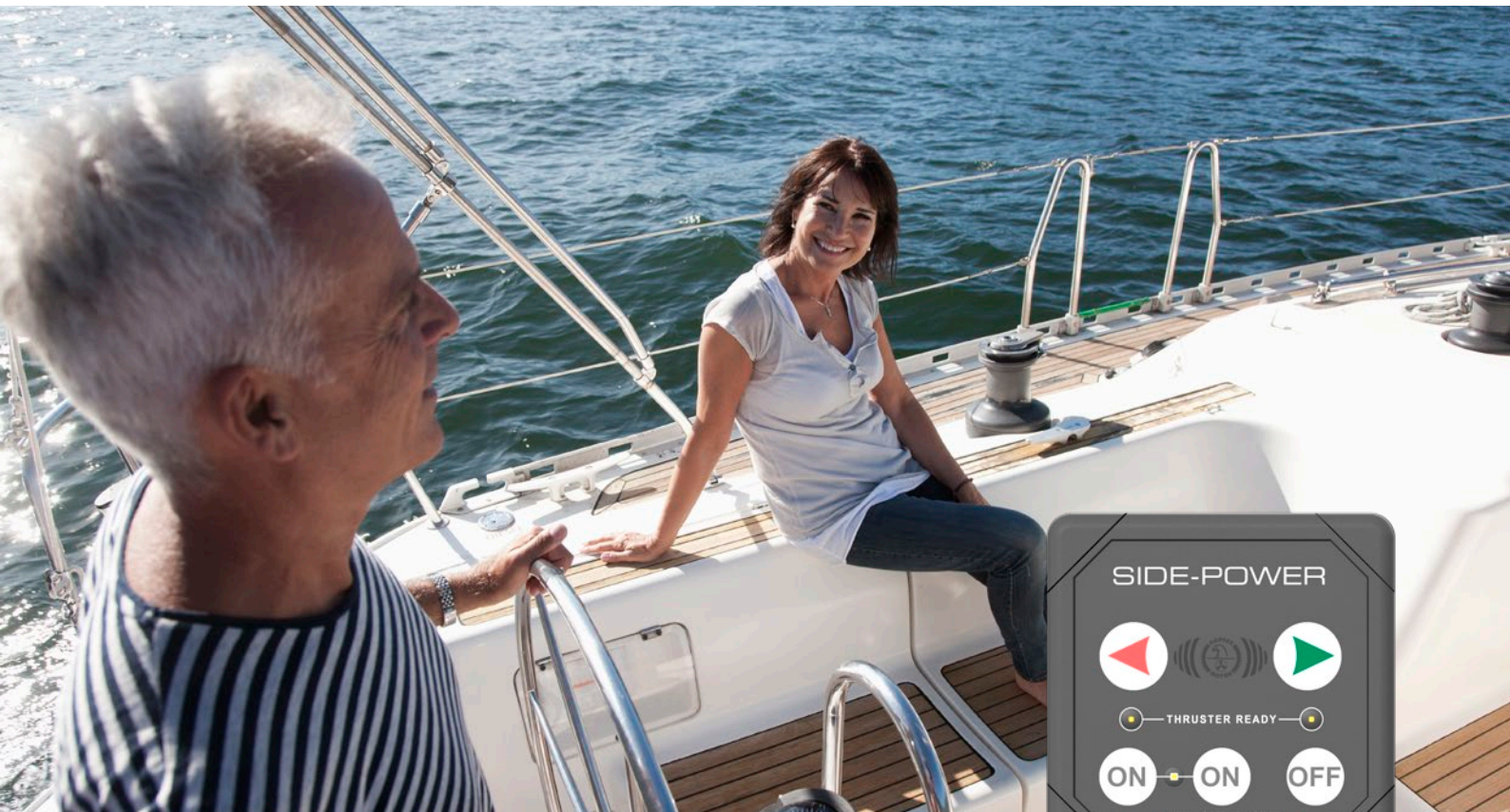
## Design

- compact size
- modern styling
- no visible screw heads
- **NEW:** Selected models now available in black





# S-link Control panels



## PJC 212 Dual Joystick for DC Speed Control

- Finger tip control with purpose designed joysticks
- Hold - function for easy docking, runs thrusters at selected power
- Back-lit LCD display with instant feedback
  - System status
  - Amount of thrust & direction of thrust
  - Thruster temperature/remaining runtime
  - Battery status
- Interactive multi-language menus
- System setup via "wizard"
- Diagnostics via panel/computer interface
- Built-in audible alarm "buzzer"
- Connector for external "buzzer"/loud audible alarms
- Also available for hydraulic systems
- Can be used as ON/OFF panel with SR retractable thrusters

## 8700 S-link Touch Panel for retractable thrusters



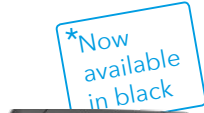
The compact and flush design keeps smaller dashboards tidy and prevents ropes from snagging on sailboats. LED status indicators report the status of the SR thruster via S-link, as well as clear and direct service notices.



## PJC 211 Single Joystick for DC Speed Control

Same as PJC212, but for one thruster.

# Control panels



## Control panel

	8950	8955	8960	8965	8940	8909
Description	Touchpanel	Round touchpanel	Joystick panel	Boat switch panel	Dual joystick panel	Docking panel
H (mm • in)	70 • 2.75	Ø86.5 • 3.40	70 • 2.75	Ø86.5 • 3.40	120 • 4.73	120 • 4.73
W (mm • in)	70 • 2.75	-	70 • 2.75	-	70 • 2.75	70 • 2.75
Analog signal	Yes	Yes	Yes	Yes	Yes	Yes
S-link digital signal	-	-	-	-	-	-
Multi-voltage	Yes	Yes	Yes	Yes	Yes	Yes
Child safety	Yes	Yes	Yes	Yes	Yes	Yes
No. of thrusters	1	1	1	1	2	2
For PRO DC Speed Control	-	-	-	-	-	-
Item Code Grey	8950 G	8955 G	8960 G	8965	8940 G	8909 C
Item Code Black	-	-	8960 S	-	8940 S	-



## RC-2 series remote controls

A totally redesigned and upgraded remote series. The new RC-2 series also include a brand new 8-channel remote, the RCT-23E, designed to operate a dual thruster + dual windlass configuration. The hardware and software of the former RC-1 models have now been totally re-designed. All models are now operating in the 868Mhz band with a new communication protocol, designed to better withstand external interference. The RCR-2E receiver has a new enclosure design, with external connectors, compatible with Side-Power four- and five-lead wire cabling for Side-Power thruster and windlass models.

## Remote control features:

- Two way communication - audiovisual warning for communication error and low thruster voltage
- New external antenna solution for better reception and easier remote placement of the antenna (Extension cable available)
- More energy efficient transmitter - uses only one battery, maintains operating time from earlier models with two batteries
- Dedicated version for S-link thrusters (8730 interface is no longer required)



# S-link control panels



8700	PJC211	PJC212	RCS-20 <sup>1)</sup>	RC-20 <sup>1)</sup>	RC-21 <sup>1)</sup>	RC-22 <sup>1)</sup>	RC-23 <sup>1)</sup>
Touch panel for retract	Single joystick for PRO	Dual joystick for PRO	Remote bow/stern	Remote bow/stern	Remote bow/windlass	Remote windlass x2	Remote bow x2/windlass x2
70 • 2.75	141 • 5.55	141 • 5.55	95 • 3.74	95 • 3.74	95 • 3.74	95 • 3.74	95 • 3.74
70 • 2.75	83 • 3.27	83 • 3.27	48 • 1.89	48 • 1.89	48 • 1.89	48 • 1.89	48 • 1.89
-	-	-	-	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	-	-	-	-
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1	1	2	2	2	2	2	4
-	Yes	Yes	Yes (on/off only)	-	-	-	-

8700	PJC211	PJC212	RCS-20	RC-20E	RC-21E	RC-22E	RC-23E
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<sup>1)</sup> Please contact your local Side-Power dealer for remote control availability in your country.

## Go mobile

Free yourself from the dashboard and increase your single handed docking abilities.

The receiver accepts up to 4 independent transmitters.



# Accessories

## Serial-parallel switch box

This switch box enables the installation of 24V thrusters in boats with a 12V system. With an additional 12V battery, you supply 24V for the thruster's operation, while all batteries are charged by your normal 12V system when the thruster is not running. The reliability of this fully automatic system has been proven in hundreds of boats over many years.

To install 24V thrusters in 12V boats (necessary extra battery is not included)

	For SE 120/130/150/170	For SE200/SE250
H x W x D (mm)	285 x 265 x 110	285 x 265 x 110
H x W x D (in)	11.2 x 10.4 x 4.3	11.2 x 10.4 x 4.3
Item code	10112A	15112A



## Automatic main switch

The most user friendly and safe installation is provided with the automatic main switch/fuse. The main power to the thruster is conveniently controlled by the Side-Power control panel. Added safety is provided by the panel's auto-off and the thruster's overheat sensor, also controlling the main switch. Flexible mounting options, "Plug & Go" wiring, heavy terminals allowing double cables and only one item to fit ensures fast and easy installation.

For Side-Power thrusters (necessary fuse not included)

	12 Volt	24 Volt
H x W x D (mm)	175 x 205 x 140	175 x 205 x 140
H x W x D (in)	6.9 x 8.1 x 5.5	6.9 x 8.1 x 5.5
Item code	897612	897624



## Fuse holder / Fuses

Side-Power manufactures fuse holders that are engineered to minimize voltage drop and heating while saving space. Made for ANL type fuses in high current applications, they accept double cables with heavy terminals. The fuse holder is also available with a protective cover. We supply ANL fuses in different sizes to match all of our thrusters.



Item code	Fuse	For thruster: 12 V	24 V
ANL80	80A		EX75S · EX55C
ANL100	100A	EX35S · EX25C	EX95S · EX70C
ANL125	125A	EX55S · EX110D	EX40C · EX180D
ANL150	150A	SE20 · SE25 · SE30 · SX35	SE/SX50 · SE60
ANL250	250A	SE40	SE/SR/SRL/SRV/SX80
ANL325	325A	SE/SX50 · SE60	SE/SR/SRL/SRV/SX100 · SE120 · SE/SRL/SRV130 · SE/SRV300 <sup>48V</sup>
ANL400	400A	SE/SR/SRL/SRV/SX80	SE/SRL/SRV170
ANL500	500A	SE/SR/SRL/SRV/SX100 · SE/SRL/SRV130	SE150 · SE/SRV210 · SE/SRV250

For approved Side-Power fuses only. Using non-Side-Power fuses we cannot guarantee the same functionality and safety standards.

**ANLHOLD** Fuseholder for all ANL type fuses

**ANLHOLD-C** Fuseholder including clear cover

# Accessories S-link



PPC520 & PPC820/840

## PPC 520 & 820/840 Power Control Unit

- Plug and play S-link control cable wiring
- Easy to access, solid main cable terminals
- Easy to place as it can be located anywhere between the batteries and the thruster, also in areas requiring ignition protected parts
- Reliable solid state switching
- Thermal and over current protection
- Active cooling for continuous usage

### PPC520 - compatible with:

SE25/30/40/50/60 12V

SE30/40/50/60/80/100/120/130 24V

**PPC820 - compatible with all models except 48V models**

**PPC840 - compatible with 48V models**

To upgrade a standard on/off thruster to a speed controlled thruster, you need a PPC Power Control Unit and the internal wiring loom needs to be upgraded with one of the following kits:

- 8 1997 - Upgrade kit SR80/100
- 8 1998 - Upgrade kit SE50/100/120/210/240/250/285/300
- 8 1999 - Upgrade kit SE25/30/40/60/80/130/150/170

Contact your local Side-Power distributor to get the correct upgrade kit for older Side-Power thrusters. Due to their sealed construction, IP-models (including SX) must be upgraded by an authorized Side-Power Distributor!



## 8730B / 8730S S-link Interface

S-link interface to connect foot switches and standard radio remotes/control panels to a S-link system (Foot switches/Panels/Radio Remote not included).

Interface Box	For Bowthruster	For Sternthruster
H (mm • in)	45 • 1.77	45 • 1.77
W (mm • in)	80 • 3.15	80 • 3.15
D (mm • in)	145 • 5.70	145 • 5.70
Item code (12 & 24V)	<b>8730 B</b>	<b>8730 S</b>



## Foot switch

Foot switch kit suitable for 8730 S-link interface. Kit contains 2 switches with covers to protect from unwanted operation. (Cables from switches to 8730 S-link interface not included)

	Foot Switch
W (mm • in)	Ø105 • 4.13
Item code (Kit)	<b>8751</b>



## Automatic Main Switch for S-link

The most user friendly and safe installation is provided with the automatic main switch/fuse. The main power to the thruster is conveniently controlled by the Side-Power control panel. Added safety is provided by the panel's auto-off and the thruster's overheat sensor, also controlling the main switch. Flexible mounting options, S-link control cable, heavy terminals allowing double cables and only one item to fit ensures fast and easy installation.

For Side-Power S-link thrusters (necessary fuse not included)

	12 Volt	24 Volt
H x W x D (mm)	175 x 205 x 140	175 x 205 x 140
H x W x D (in)	6.9 x 8.1 x 5.5	6.9 x 8.1 x 5.5
Item code	<b>897712</b>	<b>897724</b>

# The S-link System

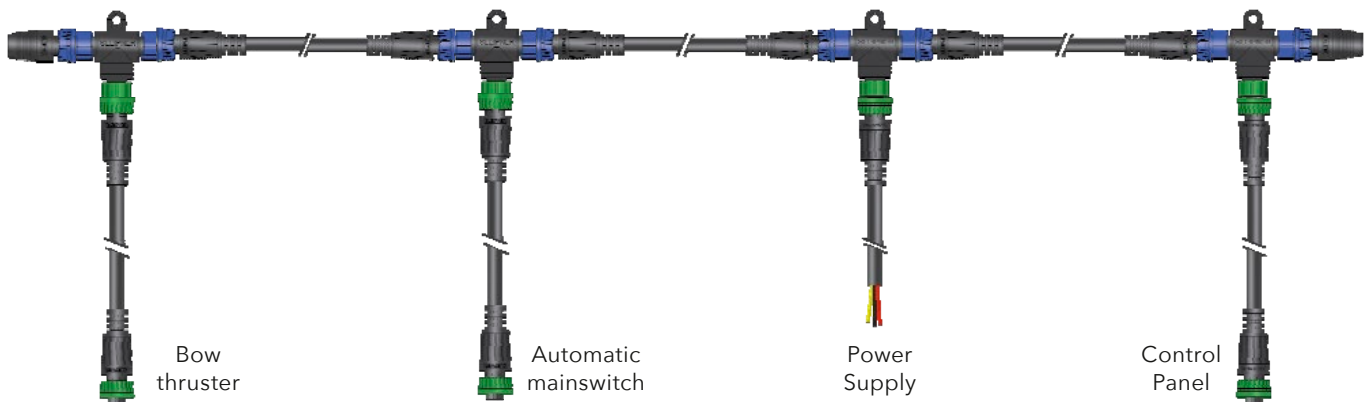


S-link is a "CAN" based control system with full intelligent communication between all units in the system, much like a computer network. It is used for all retract thrusters and all PRO version thrusters with the DC speed control system.

## Main advantages include:

- Round, compact and waterproof plugs with unique keying and color coding to avoid faulty hookup
- Unlimited number of commands or information transfer on a single cable
- User feedback to panel
- Intelligent troubleshooting

## S-link cable component overview



### Backbone cables

Forms the main "loop" around the boat.

- Part #: 6 1320-xxM (xx=length)
- 6 1320-0.2M (0.2m)
  - 6 1320-2M (2.0m)
  - 6 1320-4M (4.0m)
  - 6 1320-7M (7.0m)
  - 6 1320-10M (10.0m)
  - 6 1320-15M (15.0m)
  - 6 1320-20M (20.0m)



### Spur cables

Must be used to connect all parts to the backbone cable (one for each component, no exceptions), recommended to be as short as practically possible.

- Part #: 6 1321-xxM (xx=length)
- 6 1321-0.4M (0.4m)
  - 6 1321-1M (1.0m)
  - 6 1321-3M (3.0m)
  - 6 1321-5M (5.0m)



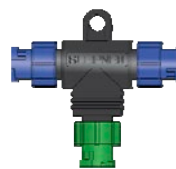
### Power cable

Must be one in each system, length 2.5m  
Part #: 6 1328



### T connector

Must be one for each spur, including power cable.  
Part #: 6 1326



### Backbone extender

Connects two backbone cables to extend length.  
Part #: 6 1322



### End terminator

Must be one in each end of the backbone "loop".  
Part #: 6 1327



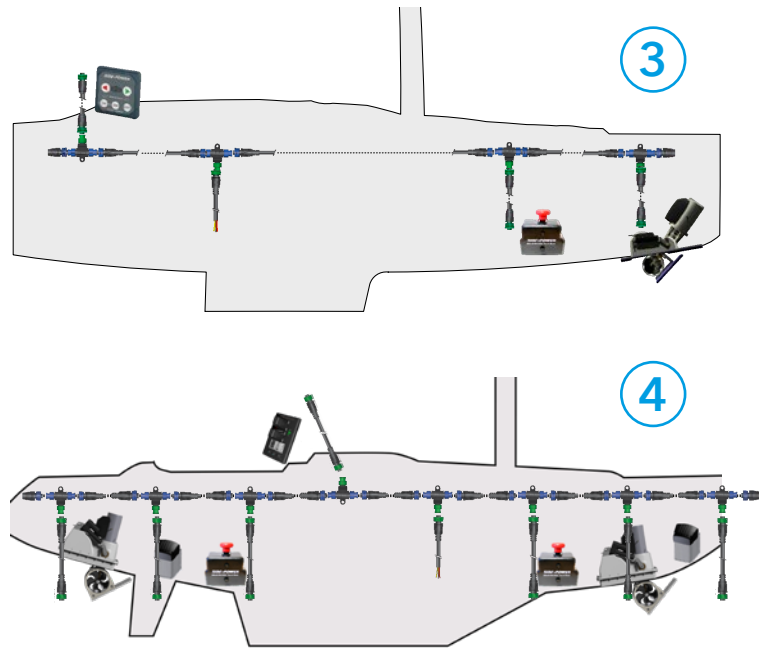
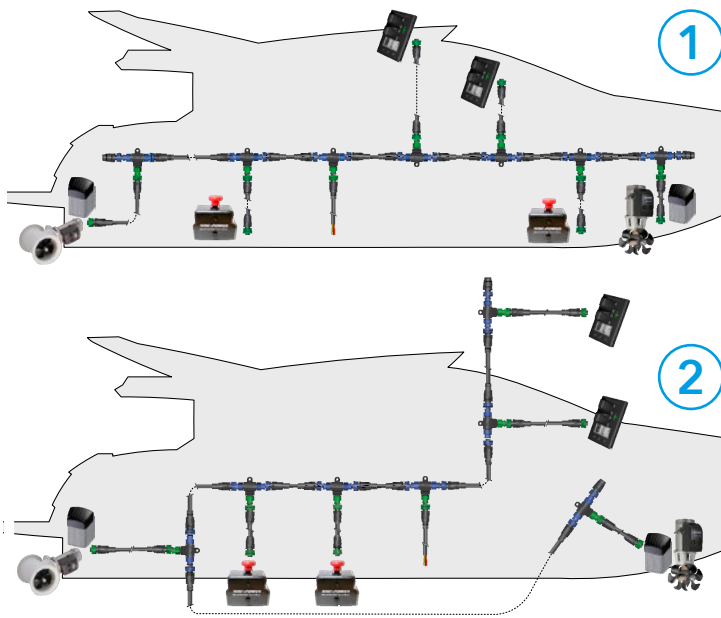
**NEW**



### S-link 4-Port T-connector

The 4-port T-connector allows four spur cable connections in the same device. This allows a more tidy installation with fewer parts. The 6 1403 comes with two sealing caps to protect unused spur connections.  
Part #: 6 1403

# S-link system examples



**Examples 1 and 2:** S-link system for boats with two control positions and two DC proportional thrusters. Depending on the boat's construction, there might be several different ways to route the S-link backbone. Find the most practical way to implement the backbone and remember that the S-link equipment does not need to be connected in a specific order.

**Example 3:** S-link system for boats with one control position and one retractable thruster.

**Example 4:** S-link system for boats with one control position and two DC proportional retractable thrusters

Item code	Description	Ex. 1 & 2	Ex. 3	Ex. 4
6 1320-xx	Backbone cable	6 pcs	3 pcs	7 pcs
6 1321-xx	Spur cable	6 pcs	3 pcs	7 pcs
6 1326	T connector	7 pcs	4 pcs	8 pcs
6 1328	Power cable	1 pc	1 pc	1 pc
6 1327	End terminator	2 pcs	2 pcs	2 pcs

## Plug&Play control cables

Make sure that the complete installation meets the Side-Power quality standard and take advantage of our "Plug & Go" wiring system by using original control looms. They are available in many different lengths and Y-connectors tie multiple control positions together. Color coded to match the wiring diagrams with high quality connectors to ensure a correct installation. This cable is for all thruster models besides the PRO series and retractable thrusters.

When using the automatic main switch in your thruster system, you need the 5-lead cable between the control panel and auto switch, as the extra lead will actively control the switch and thereby the main power to the thruster, adding extra safety. Please see schematics on page 11.

Description	Item code 4-lead	Item code 5-lead
Control cable 4 meter	6 1277-04M	6 1278-04M
Control cable 7 meter	6 1277-07M	6 1278-07M
Control cable 9 meter	6 1277-09M	6 1278-09M
Control cable 12 meter	6 1277-12M	6 1278-12M
Control cable 15 meter	6 1277-15M	6 1278-15M
Control cable 18 meter	6 1277-18M	6 1278-18M
Control cable 22 meter	6 1277-22M	6 1278-22M
Y-connector for multiple control panels	6 1274	6 1273



# SE Series tunnel thrusters

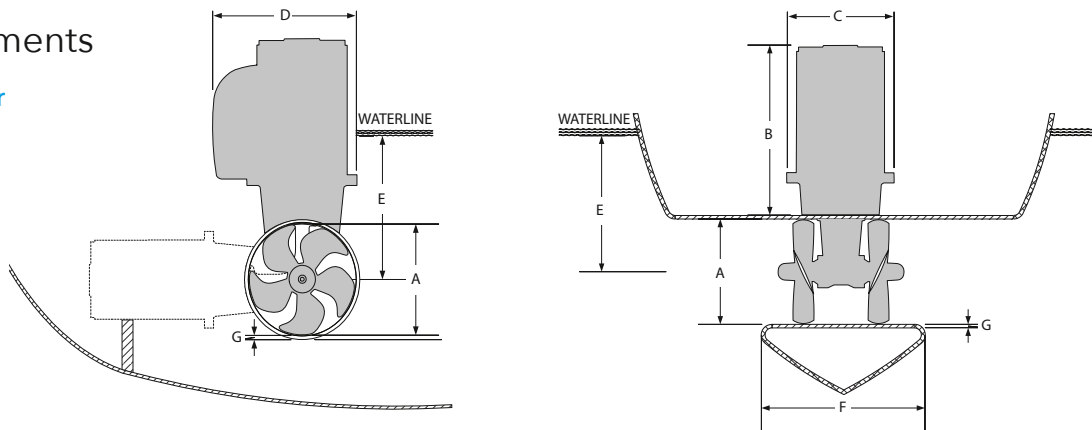


## SE Series\*

	SE 20/110S	SE 25/110S	SE 30/125S2	SE 40/125S2	SE 50/140S	SE 60/185S2	SE 80/185T	SE 100/185T
Thrust at 12V/24V* (kg • lbs)	25 • 55	30 • 66	40 • 88	48 • 105	62 • 136	73 • 161	96 • 212	116 • 256
Thrust at 10.5V/21V* (kg • lbs)	20 • 44	25 • 55	30 • 66	40 • 88	50 • 110	60 • 132	80 • 176	100 • 220
Typical boat size (ft • m)	> 23' • > 7	> 24' • > 7	20' - 28' • 6 - 8.5	26' - 34' • 8 - 10.5	27' - 37' • 8 - 11	29' - 38' • 9 - 12	35' - 48' • 10 - 15	35' - 55' • 12 - 17
Tunnel I.D. (mm • in)	110 • 4.33"	110 • 4.33"	125 • 4.92"	125 • 4.92"	140 • 5.5"	185 • 7.3"	185 • 7.3"	185 • 7.3"
Propulsion system	Single	Single	Single	Single	Single	Single	Twin	Twin
Power at 10.5V/21V* (kw • hp)	1.5 • 2	1.5 • 2	1.5 • 2	2.2 • 3	2.4 • 3.2	3.1 • 4	4.4 • 6	6.3 • 8.4
For DC system (V)	12	12	12	12	12/24	12/24	12/24	12/24
Weight (kg • lbs)	9.5 • 21	9.5 • 21	9.5 • 21	10 • 22	15 • 33	16 • 35	20 • 44	31 • 68
Min. Batt. Cap (CCA** 12/24V)	200	200	200	300	350/175	350/175	550/300	750/400
Item Code 12V	SE20/110S	SE25/110S	SE30/125S2	SE40/125S2	SE50/140S-12V	SE60/185S2-12V	SE80/185T-12V	SE100/185T-12V
Item Code 24V					SE50/140S-24V	SE60/185S2-24V	SE80/185T-24V	SE100/185T-24V
Item Code 12V PRO	SEP20/110S	SEP25/110S	SEP30/125S2	SEP40/125S2	SEP50/140S-12V	SEP60/185S2-12V	SEP80/185T-12V	SEP100/185T-12V
Item Code 24V PRO					SEP50/140S-24V	SEP60/185S2-24V	SEP80/185T-24V	SEP100/185T-24V
Stern tunnel kit	-	-	90124i	90124i	-	90052i	90086i	90086i
Cowls - short model	-	-	-	-	-	90075	90075	90075
Cowls - long model	-	-	90126	90126	-	90077	90077	90077

## Measurements

### Bow Thruster



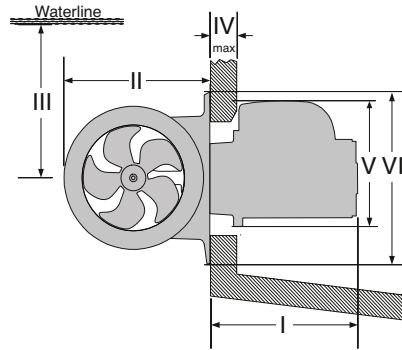
Bow	SE20	SE25	SE30	SE40	SE50		SE60		SE80		SE100		SE120	SE130	SE150	SE170	SE210	SE250	SE300	
mm	12V	12V	12V	12V	12V	24V	12V	24V	12V	24V	12V	24V	24V	12V	24V	24V	24V	24V	24V	
A	110	110	125	125	140	140	185	185	185	185	185	185	215	250	250	215	250	250	300	300
B	209	252	263	263	264	264	259	242	352	344	393	393	394	398	398	412	412	480	490	457
C	200	198	199	206	200	200	200	199	252	261	292	272	266	296	277	292	292	337	337	350
D	183	183	183	183	208	208	208	208	206	206	240	240	243	250	249	245	247	274	274	274
E <sub>min</sub>	110	110	125	125	140	140	185	185	185	185	185	185	215	250	250	215	250	250	300	300
F	111	111	111	111	124	124	128	128	179	179	179	179	233	253	253	233	272	273	273	273
F <sub>rec</sub>	133	133	136	136	152	152	165	165	216	216	216	216	276	303	303	276	322	323	333	333
G <sub>min</sub>	4	4	4	4	5	5	4	4	6	6	6	6	7	7	7	7	7	7	10	10
G <sub>max</sub>	6	6	6	6	7	7	6	6	8	8	8	8	9	9	9	9	9	9	12	12





SE 120/215T	SE 130/250T	SE 150/215T	SE 170/250TC	SE 210/250TC	SE 250/300TC	SE 300/300TC
139 • 306	160 • 352	182 • 400	210 • 462	250 • 550	300 • 661	340 • 749
120 • 264	130 • 284	150 • 330	170 • 374	210 • 462	250 • 551	300 • 661
42' - 60' • 13 - 18	42' - 62' • 13 - 19	44' - 64' • 14 - 20	50' - 70' • 15 - 22	55' - 78' • 17 - 24	60' - 84' • 18 - 25	72' - 100' • 22 - 30
215 • 8.46"	250 • 9.8"	215 • 8.46"	250 • 9.8"	250 • 9.8"	300 • 11.8"	300 • 11.8"
Twin	Twin	Twin	Twin Counter rot.	Twin Counter rot.	Twin Counter rot.	Twin Counter rot.
6.4 • 8.55	6.5 • 8.7	8.8 • 11.8	8 • 10.7	10 • 13.15	11.4 • 15.5	15 • 20
24	12/24	24	24	24	24	24 (48V motor)
34 • 74	37 • 77	38 • 79	44 • 97	68 • 150	70 • 154	73 • 160
400	750/400	560	550	650	700	2x450 - 24V
SE120/215T	SE130/250T-12V SE130/250T-24V SEP130/250T-12V SEP130/250T-24V	SE150/215T	SE170/250TC	SE210/250TC	SE250/300TC	SE300/300TC
SEP120/215T	SEP130/250T-24V	SEP150/215T	SEP170/250TC	SEP210/250TC	SEP250/300TC	SEP300/300TC-48
90135i	90150i	90135i	90150i	90150i	90200i	90200i
-	-	-	-	-	-	-
90136	90130	90136	90130	90130	90220	90220

## Stern Thruster



Code	Measurement description
A	Internal tunnel diameter
B	Height inside hull
C	Width
D	Length
E <sub>min</sub>	Minimum waterline depth
F	Minimum tunnel length
F <sub>rec</sub>	Recommended tunnel length
G <sub>min</sub>	Minimum tunnel wall thickness
G <sub>max</sub>	Maximum tunnel wall thickness
III <sub>min</sub>	Minimum water depth
IV <sub>max</sub>	Maximum hull thickness
TL	Tunnel length

Measurements are referring to models on page

Stern	SE30	SE40	SE60		SE80		SE100		SE120	SE130		SE150	SE170	SE210	SE250	SE300
mm	12V	12V	12V	24V	12V	24V	12V	24V	24V	12V	24V	24V	24V	24V	24V	24V
I	218	228	231	214	294	303	351	351	361	352	348	380	362	422	440	407,2
II	188	188	265	265	265	265	265	265	300	345	345	300	345	360	417	422
III <sub>min</sub>	125	125	185	185	185	185	185	185	215	250	250	215	250	250	300	300
IV <sub>max</sub>	19	17	43	43	56	56	60	64	61	56	55	73	56	50	68	67
V	198	205	200	202	253	261	292	272	266	297	277	292	292	274	337	350
VI	225	225	290	290	294	294	294	294	305	350	350	305	350	356	436	396
TL	197	197	335	335	335	335	335	335	330	350	350	330	350	350	456	456

\*Note 1 - See page 51

# SE IP Series tunnel thrusters

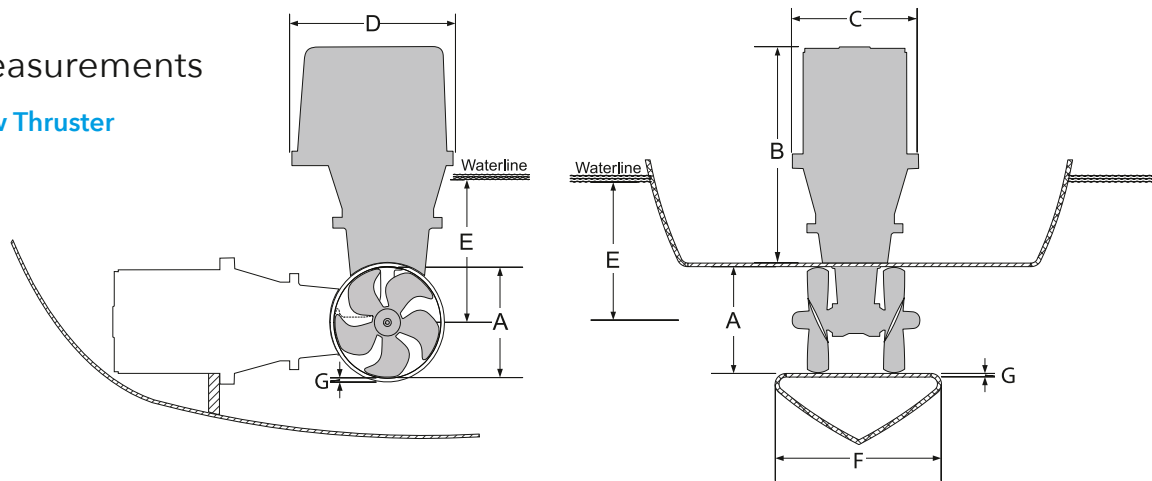


## IP Series

	SE 30/125S2-IP	SE 40/125S2-IP	SE 50/140S-IP	SE 60/185S2-IP
Thrust at 12V/24V* (kg • lbs)	40 • 88	48 • 105	62 • 136	73 • 161
Thrust at 10.5V/21V* (kg • lbs)	30 • 66	40 • 88	50 • 110	60 • 132
Typical boat size (ft • m)	20' - 28' • 6 - 8.5	26' - 34' • 8 - 10.5	27' - 37' • 8 - 11	29' - 38' • 9 - 12
Tunnel I.D. (mm • in)	125 • 4.92"	125 • 4.92"	140 • 5.5"	185 • 7.3"
Propulsion system	Single	Single	Single	Single
Power at 10.5V/21V* (kw • Hp)	1.5 • 2	2.2 • 3	2.4 • 3.2	3.1 • 4
For DC system (V)	12	12	12/24	12/24
Weight (kg • lbs)	9.5 • 21	10 • 22	15 • 33	16 • 35
Min. Batt. Cap (CCA** 12/24V)	200	300	350/175	350/175
Item Code 12V	SE30/125S2-IP	SE40/125S2-IP	SE50/140S-12V-IP	SE60/185S2-12IP
Item Code 24V			SE50/140S-24V-IP	SE60/185S2-24IP
Item Code 12V PRO	SEP30/125S2-12IP	SEP40/125S2-12IP	SEP50/140S-12V-IP	SEP60/185S2-12IP
Item Code 24V PRO		SEP40/125S2-24IP	SEP50/140S-24V-IP	SEP60/185S2-24IP

## Measurements

### Bow Thruster



Bow	SE30-IP	SE40-IP	SE50-IP		SE60-IP		SE80-IP		SE100-IP		SE120-IP		SE130-IP		SE170-IP
mm	12V	12V	12V	24V	12V	24V	12V	24V	12V	24V	24V	12V	24V	24V	
A	125	125	140	140	185	185	185	185	185	185	215	250	250	250	
B	263	263	264	264	259	242	352	344	393	393	394	398	398	412	
C	199	206	200	200	200	199	252	261	292	272	266	296	277	292	
D	183	183	208	208	208	208	206	206	240	240	243	250	249	247	
E <sub>min</sub>	125	125	140	140	185	185	185	185	185	185	215	250	250	250	
F	111	111	124	124	128	128	179	179	179	179	233	253	253	272	
F <sub>rec</sub>	136	136	152	152	165	165	216	216	216	216	276	303	303	322	
G <sub>min</sub>	4	4	5	5	4	4	6	6	6	6	7	7	7	7	
G <sub>max</sub>	6	6	7	7	6	6	8	8	8	8	9	9	9	9	



**SE 80/185T-IP**

**SE 100/185T-IP**

**SE 120/215T-IP**

**SE 130/250T-IP**

**SE 170/250TC-IP**

96 • 212	116 • 256	139 • 306	160 • 352	210 • 462
80 • 176	100 • 220	120 • 264	130 • 284	170 • 374
35' - 48' • 10 - 15	35' - 55' • 12 - 17	42' - 60' • 13 - 18	42' - 62' • 13 - 19	50' - 70' • 15 - 22
185 • 7.3"	185 • 7.3"	215 • 8.46"	250 • 9.8"	250 • 9.8"
Twin	Twin	Twin	Twin	Twin Counter rot.
4.4 • 6	6.3 • 8.4	6.4 • 8.55	6.5 • 8.7	8 • 10.7
12/24	12/24	24	12/24	24
20 • 44	31 • 68	34 • 74	37 • 77	44 • 97
550/300	750/400	400	750/400	550

SE80/185T-12V-12IP  
SE80/185T-24V-24IP  
SEP80/185T-12V-12IP  
SEP80/185T-24V-24IP

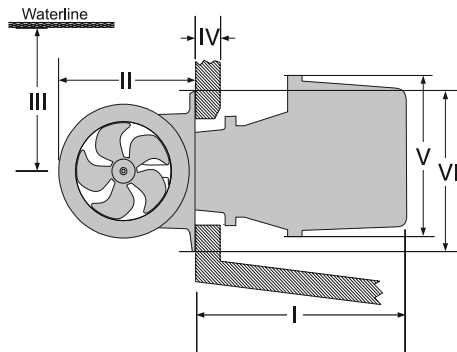
SE100/185T-12V-12IP  
SE100/185T-24V-24IP  
SEP100/185T-12V-12IP  
SEP100/185T-24V-24IP

SE120/215T-IP  
SEP120/215T-IP

SE130/250T-12V-12IP  
SE130/250T-24V-24IP  
SEP130/250T-12V-12IP  
SEP130/250T-24V-24IP

SE170/250TC-IP  
SEP170/250TC-IP

**Stern Thruster**



Code	Measurement description
A	Internal tunnel diameter
B	Height inside hull
C	Width
D	Length
E <sub>min</sub>	Minimum waterline depth
F	Minimum tunnel length
F <sub>rec</sub>	Recommended tunnel length
G <sub>min</sub>	Minimum tunnel wall thickness
G <sub>max</sub>	Maximum tunnel wall thickness
TL	Tunnel length

Measurements are referring to models on page

Stern	SE30-IP	SE40-IP	SE60-IP	SE80-IP	SE100-IP	SE120-IP	SE130-IP	SE170-IP
mm	12V	12V	12V	24V	12V	24V	12V	24V
I	256	268	278	278	364	364	458	468
II	188	188	265	265	265	265	265	300
III <sub>min</sub>	125	125	185	185	185	185	185	215
IV <sub>max</sub>	70	65	88	88	64	64	72	81
V	238	238	272	272	327	327	381	381
VI	255	225	290	290	294	294	294	294
TL	197	197	335	335	335	335	335	330

\*Note 1 - See page 51


# SR Series retracting thrusters

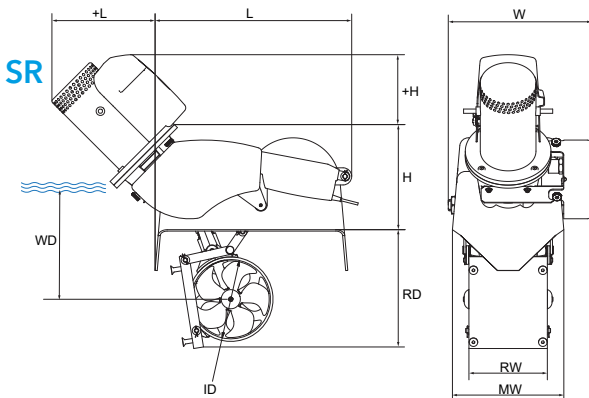


SR

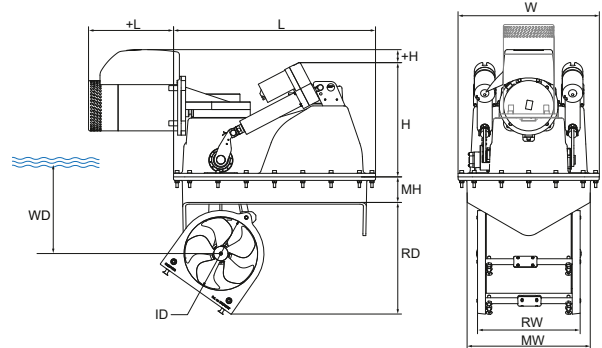
SRL

## SR Series\*

	SR 80/185 T	SR 100/185 T	SRL 80/185 T	SRL 100/185 T	SRL 130/250 T	SRL 170/250TC 
Thrust at 12V/24V* (kg • lbs)	96 • 212	116 • 256	96 • 212	116 • 256	160 • 352	210 • 462
Thrust at 10.5V/21V* (kg • lbs)	80 • 176	100 • 220	80 • 176	100 • 220	130 • 284	170 • 374
Typical boat size <sup>(ft • m)</sup>	35' - 48' • 10 - 15	35' - 55' • 12 - 17	35' - 48' • 10 - 15	35' - 55' • 12 - 17	42' - 62' • 13 - 19	50' - 70' • 15 - 22
Tunnel I.D. (mm • in)	185 • 7.3"	185 • 7.3"	185 • 7.3"	185 • 7.3"	250 • 9.8"	250 • 9.8"
Propulsion system	Twin	Twin	Twin	Twin	Twin	Twin Counter rot.
Power at 10.5V/21V* (kw • Hp)	4.4 • 6	6.3 • 8.4	4.4 • 6	6.3 • 8.4	6.5 • 8.7	8 • 10.7
For DC system <sup>(V)</sup>	12/24	12/24	12/24	12/24	12/24	24
Weight 12V (kg • lbs)	31 • 68	44 • 97	31 • 68	44 • 97	82 • 181	88 • 194
Min. Batt. Cap <sup>(CCA**12/24V)</sup>	550/300	750/400	550/300	750/400	750/400	550
Installation	Mould-in	Mould-in	Flange	Flange	Flange	Flange
Item Code 12V	SR80/185T-12V	SR100/185T-12V	SRL80/185T-12V	SRL100/185T-12V	SRL130/250T-12V	SRL170/250T-12V
Item Code 24V	SR80/185T-24V	SR100/185T-24V	SRL80/185T-24V	SRL100/185T-24V	SRL130/250T-24V	SRL170/250T-24V
Item Code 12V PRO	SRP80/185T-12V	SRP100/185T-12V	SRLP80/185T-12V	SRLP100/185T-12V	SRLP130/250T-12V	SRLP170/250T-12V
Item Code 24V PRO	SRP80/185T-24V	SRP100/185T-24V	SRLP80/185T-24V	SRLP100/185T-24V	SRLP130/250T-24V	SRLP170/250T-24V

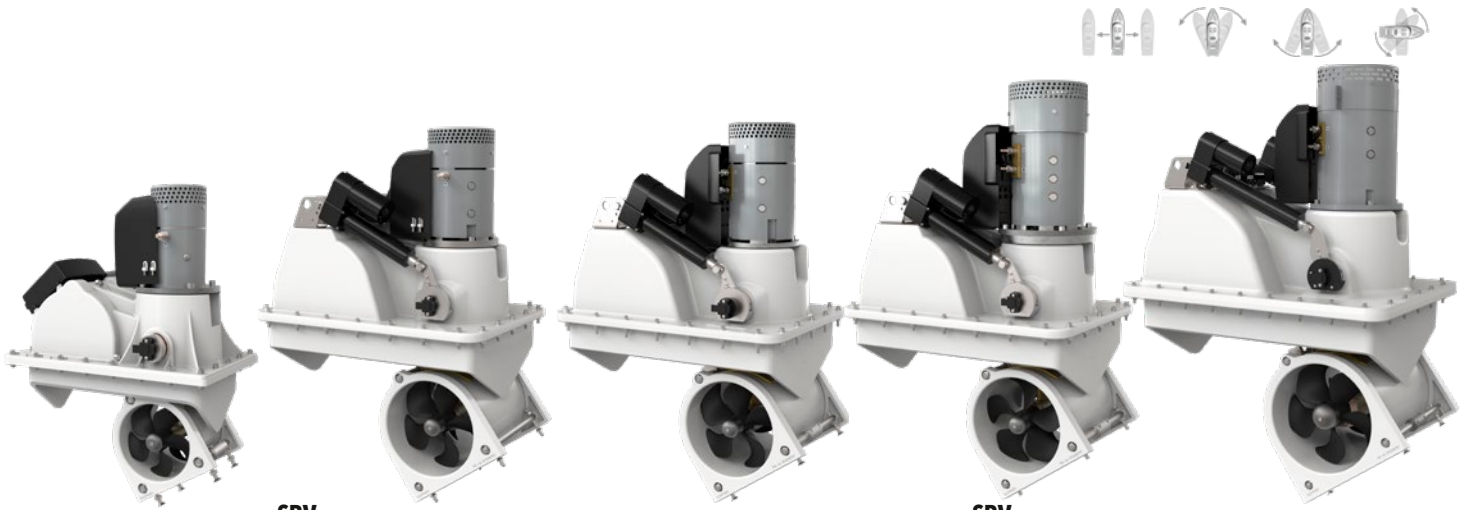


SRL



Model	SR80		SR100	
	12V	24V	12V	24V
mm				
+ L	260	244	258	288
L	459	459	459	459
+ H	167	170	212	205
H	245	245	245	245
MH	-	-	-	-
RD	278	278	278	278
ID	185	185	185	185
RW	183	183	183	183
MW	260	260	260	260
WD	185	185	185	185
W	335	335	335	335

Model	SRL80		SRL100		SRL130		SRL170
	12V	24V	12V	24V	12V	24V	24V
mm							
+ L	230	245	287	281	272	272	286
L	561	561	561	561	688	688	688
+ H	93	96	129	128	48	26	46
H	243	243	243	243	389	389	389
MH	62	62	62	62	91	91	91
RD	276	276	276	276	378	378	376
ID	185	185	185	185	250	250	250
RW	195	195	195	195	348	348	349
MW	257	257	257	257	406	406	406
WD	185	185	185	185	250	250	250
W	359	359	359	359	481	481	481



SRV

SRV

**SRV 80/185 T**

**SRV 100/185 T**

**SRV 130/250 T**

**SRV 170/250 TC**

**SRV 210/250 TC**

**SRV 250/300 TC**

**SRV 300/300 TC**

96 • 212	116 • 256	160 • 352	210 • 462	250 • 550	300 • 661	340 • 749
80 • 176	100 • 220	130 • 284	170 • 374	210 • 462	250 • 551	300 • 661
35' - 48' • 10 - 15	35' - 55' • 12 - 17	42' - 62' • 13 - 19	50' - 70' • 15 - 22	55' - 78' • 17 - 24	60' - 84' • 18 - 25	72' - 98' • 22 - 30
185 • 7.3"	185 • 7.3"	250 • 9.8"	250 • 9.8"	250 • 9.8"	300 • 11.8"	300 • 11.8"
Twin	Twin	Twin	Twin Counter rot.	Twin Counter rot.	Twin Counter rot.	Twin Counter rot.
4.4 • 6	6.3 • 8.4	6.5 • 8.7	8 • 10.7	11 • 14.5	11.4 • 15.5	15 • 20
12/24	12/24	12/24	24	24	24	24 (48V motor)
31 • 86	44 • 97	82 • 181	88 • 194	112 • 247	117 • 257	120 • 265
550/300	750/400	750/400	550	650	700	- / 2x450 - 24V
Flange	Flange	Flange	Flange	Flange	Flange	Flange

**SRV80/185T-12V**

**SRV100/185T-12V**

**SRV130/250T-12V**

**SRV170/250TC-24V**

**SRV210/250TC-24V**

**SRV250/300TC-24V**

**SRV300/300TC-48V**

**SRVP80/185T-12V**

**SRVP100/185T-12V**

**SRVP130/250T-12V**

**SRVP170/250TC-24V**

**SRVP210/250TC-24V**

**SRVP250/300TC-24V**

**SRVP300/300TC-48V**

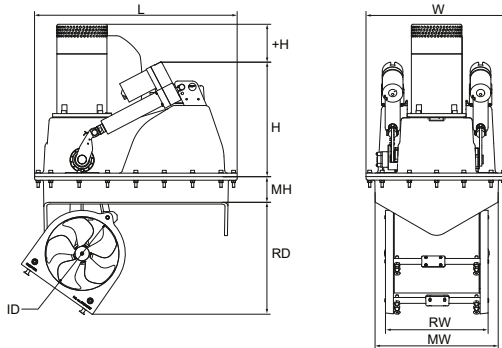
**SRVP80/185T-24V**

**SRVP100/185T-24V**

**SRVP130/250T-24V**



SRV



Model	SRV80		SRV100		SRV130		SRV170	SRV250	SRV300
mm	12V	24V	12V	24V	12V	24V	24V	24V	24V
+ L	-	-	-	-	-	-	-	-	-
L	561	561	561	561	688	688	688	843	843
+ H	169	184	226	221	111	111	125	169	137
H	243	243	243	243	389	389	389	455	455
MH	62	62	62	62	91	91	91	106	106
RD	276	276	276	276	378	378	376	454	454
ID	185	185	185	185	250	250	250	300	300
RW	195	195	195	195	349	349	349	415	415
MW	257	257	257	257	406	406	406	477	477
WD	185	185	185	185	250	250	250	300	300
W	359	359	359	359	481	481	481	580	580

Code	Measurement description
+ L	Additional Length
L	Length
+ H	Additional Height
H	Height
MH	Mould height (Flange height)
RD	Retract depth
ID	Internal Tunnel Diameter
RW	Retract width
MW	Mould width
WD	Water depth
W	Width

Measurements are referring to models on page

\*Note 1 - See page 51

# EX Series



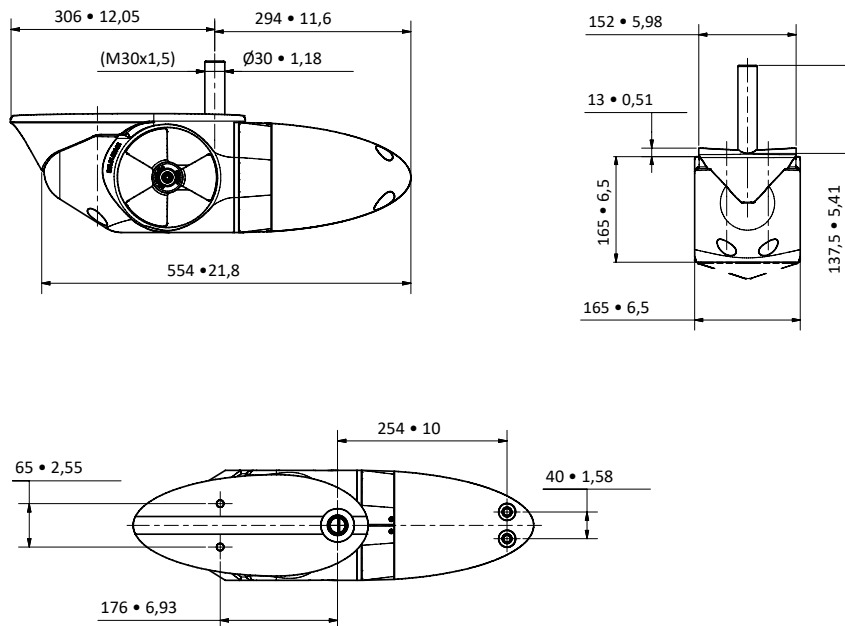
## EX Series

	EX 35 S	EX 55 S	EX 75 S	EX 95 S
Thrust at 11.5V/23V* (kg • lbs)	25 • 55	40 • 88	53 • 117	67 • 148
Performance thrust*** (kg • lbs)	35 • 77	55 • 121	74 • 163	95 • 210
Typical boat size (ft • m)	20' - 28' • 6 - 8.5	26' - 34' • 8 - 10.5	29' - 38' • 9 - 12	35' - 48' • 10 - 15
Tunnel I.D. (mm • in)	150 • 5.9"	150 • 5.9"	150 • 5.9"	150 • 5.9"
Propulsion system	Single	Single	Single	Single
Power at 10.5V/21V* (kw • Hp)	1.3 • 1.75	1,8 • 2.4	2,3 • 3.1	3,0 • 4,0
For DC system (V)	12	12	24	24
Weight (kg • lbs)	19,5 • 43	19,5 • 43	19,5 • 43	19,5 • 43
Min. Batt. Cap (CCA** 12/24V)	170	225	150	190
Item Code 12V	EX35S	EX55S	EX75S	EX95S
Item Code 24V				

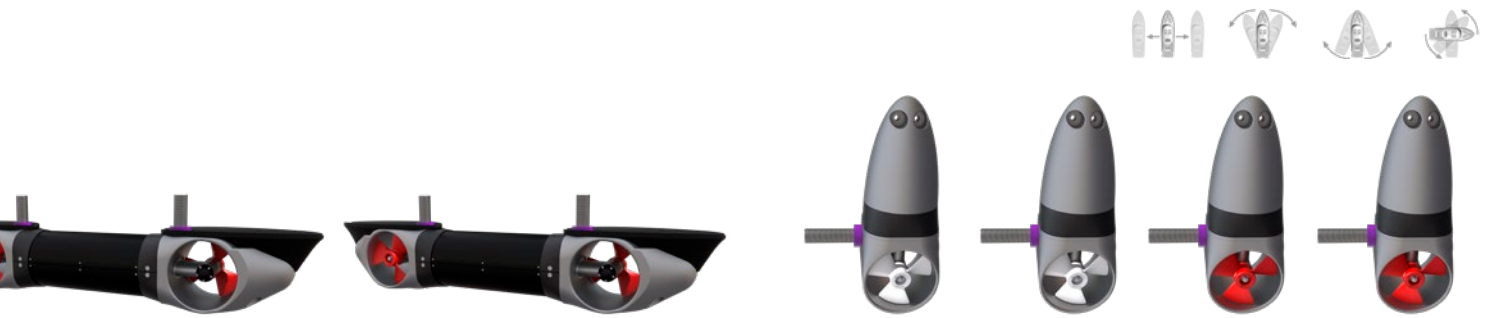


## Measurements

### EX Single



\*Note 2 - See page 51

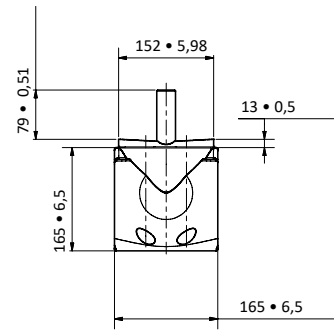
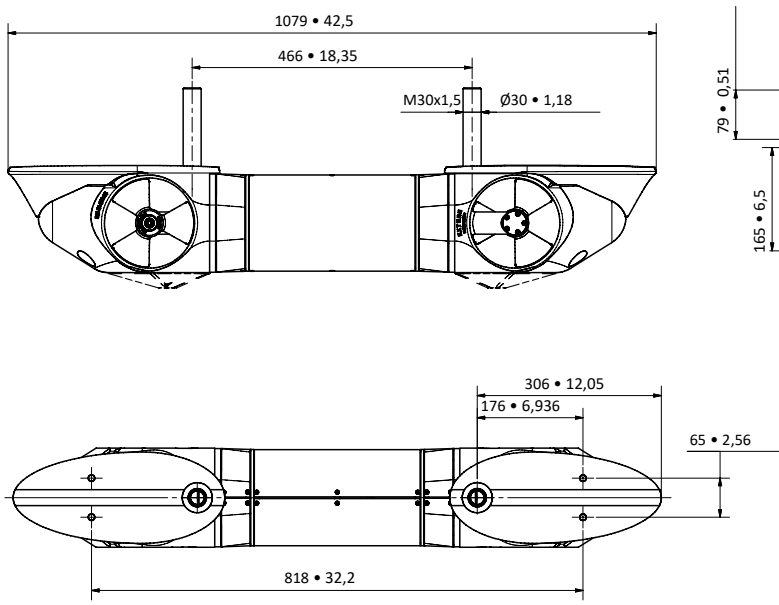


EX 110 D	EX 180 D	EX 25 C	EX 40 C	EX 55 C	EX 70 C
80 • 176	130 • 264	25 • 55	40 • 88	53 • 117	67 • 148
110 • 243	180 • 397	-	-	-	-
35' - 53' • 12 - 16	44' - 59' • 14 - 18	18' - 26' • 5 - 8	24' - 34' • 7,5 - 10,5	28' - 36' • 8,5 - 11	32' - 42' • 9,5 - 13
150 • 5.9"	150 • 5.9"	150 • 5.9"	150 • 5.9"	150 • 5.9"	150 • 5.9"
Dual	Dual	Single	Single	Single	Single
4,0 • 5.4	6,0 • 8.0	1.3 • 1.75	1,8 • 2.4	2,3 • 3.1	3,0 • 4.0
12	24	12	12	24	24
35 • 77	35 • 77	12 • 26,5	12 • 26,5	12 • 26,5	12 • 26,5
250	375	170	225	150	190

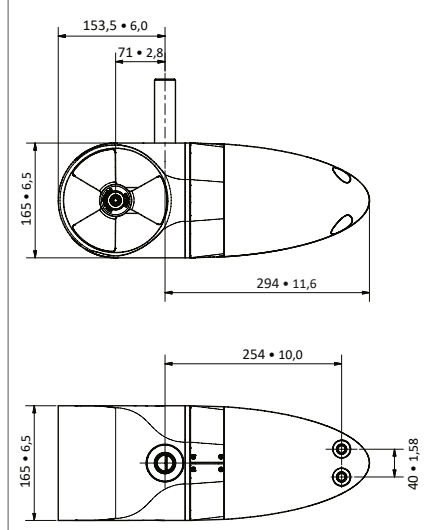
EX110D	EX180D	EX25C	EX40C	EX55C	EX70C
--------	--------	-------	-------	-------	-------



## EX Dual

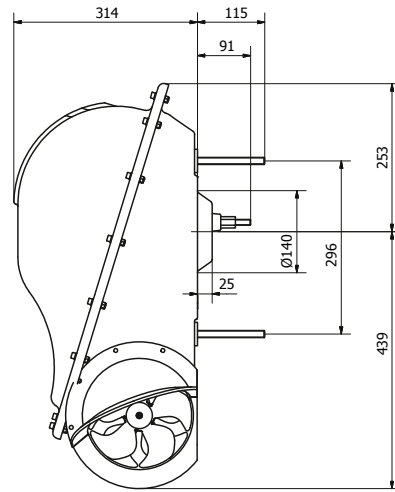


## EX Compact



Illustrations may show optional features and accessories not included on standard models. Please check product details.

# SX Series



## SX Series

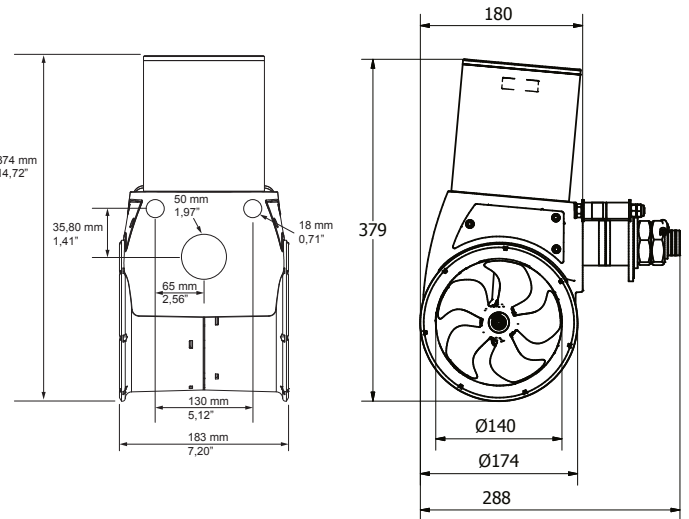
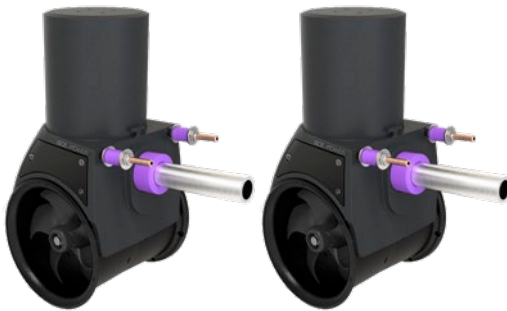
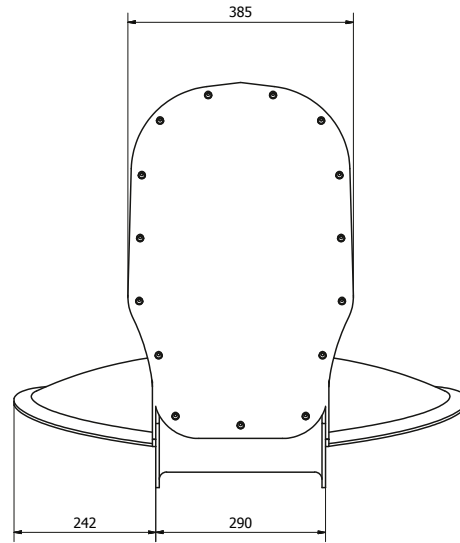
### SX 80/185 T

### SX 100/185 T

Thrust at 12V/24V* (kg • lbs)	96 • 212	116 • 256
Thrust at 10.5V/21V* (kg • lbs)	80 • 176	100 • 220
Typical boat size (ft • m)	35' - 48' • 10 - 15	35' - 55' • 12 - 17
Tunnel I.D. (mm • in)	185 • 7.3"	185 • 7.3"
Propulsion system	Twin	Twin
Power at 10.5V/21V* (kw • Hp)	4.4 • 6	6.3 • 8.4
For DC system (V)	12/24	12/24
Weight (kg • lbs)	52 • 115	57 • 125
Min. Batt. Cap (CCA** 12/24V)	550/300	750/400

Item Code 12V	SX80/185T-12V	SX100/185T-12V
Item Code 24V	SX80/185T-24V	SX100/185T-24V
Item Code 12V PRO	SXP80/185T-12V	SXP100/185T-12V
Item Code 24V PRO	SXP80/185T-24V	SXP100/185T-24V

\*Note 1 - See page 51



## SX Series

### SX 35/140

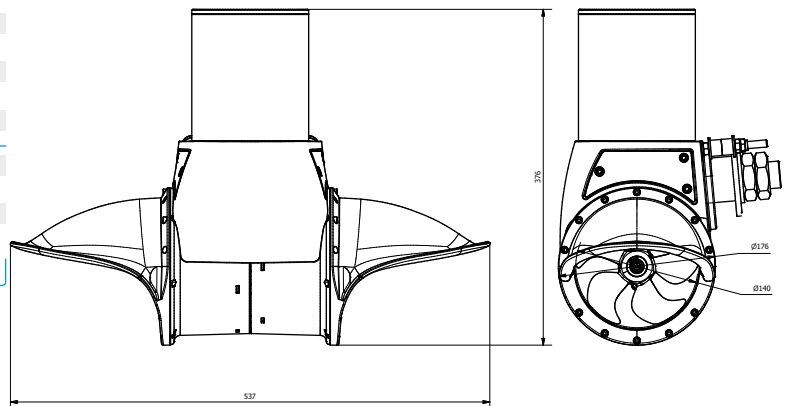
### SX 50/140

Thrust at 12V/24V* (kg • lbs)	43 • 93	62 • 136
Thrust at 10.5V/21V* (kg • lbs)	35 • 77	50 • 110
Typical boat size (ft • m)	19' - 32' • 6 - 10	27' - 37' • 8 - 11
Tunnel I.D. (mm • in)	140 • 5.5"	140 • 5.5"
Propulsion system	Single	Single
Power at 10.5V/21V* (kw • Hp)	1.8 • 2.4	2.8 • 3.75
For DC system (V)	12	12
Weight (kg • lbs)	15.3 • 34	15.3 • 34
Min. Batt. Cap (CCA** 12/24V)	300	380

Item Code 12V	SX35/140	SX50/140
Item Code 24V	-	-
Item Code 12V PRO	SXP35/140	SXP50/140
Item Code 24V PRO	-	-



\*Cowls are optional





# S-link Accessories



## Control panels



PJC 211 / 212 / 221 / 222  
Single / Dual Joystick for  
DC Speed Control

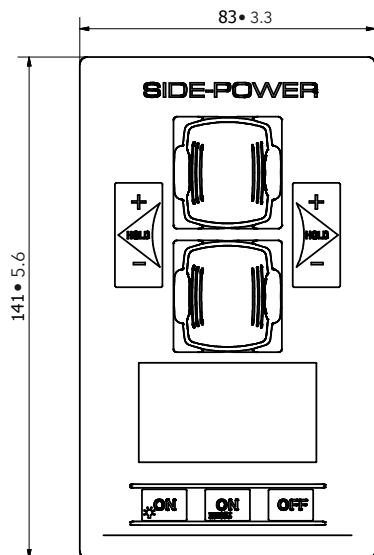
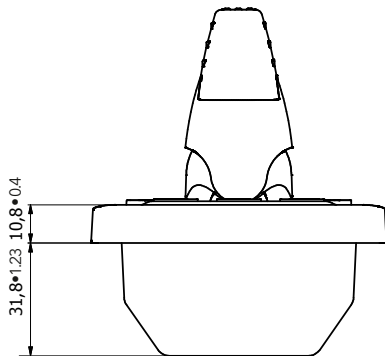
## Power Control Units



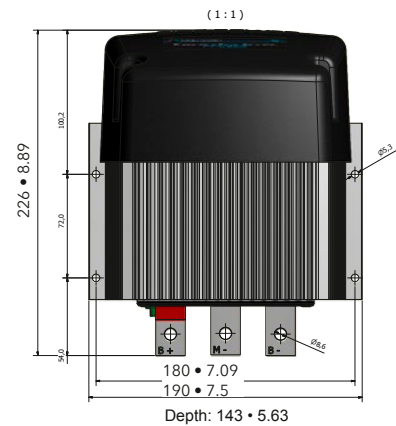
PPC 520

PPC 820  
PPC 840

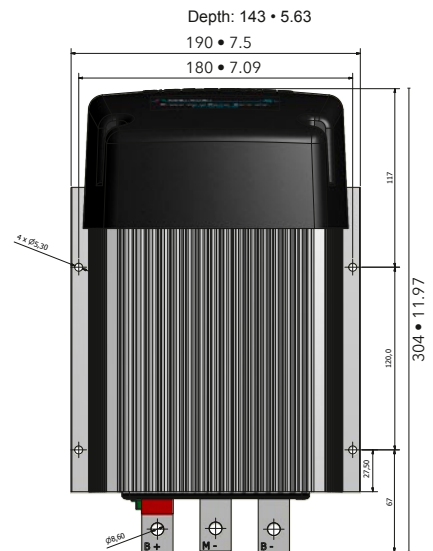
## Measurements



PPC 520



PPC 820  
PPC 840



# The difference is in the details

	safety	lifetime & reliability	better performance	easy installation	easy service
Control panels with child safe on/off and time lapse auto-off prevent accidental or unintentional operation	✓				
Self re-setting overheat protection automatically stops the thruster before overheating	✓	✓			
Intelligent direction change delay simplifies operation and prevents damage from operator error	✓	✓			
Control system only accepts continuous run signal for 3 min. User warning before overheat protection activates	✓	✓			
Side-Power developed special solenoid contactors to ensure correct function and maximum lifetime in a boat	✓	✓	✓		
Closed solenoid contacts prevent dust from getting into the contacts	✓	✓		✓	
External main power terminals ensure fast, easy and safe connection of heavy power cables	✓			✓	✓
GRP tunnels are purpose built for thruster applications, they are precise, strong, and protected against osmosis		✓	✓	✓	
Lightweight composite propellers on all thrusters are strong yet lightweight, and always perfectly shaped for high power and low noise		✓	✓		
Lock nut fastening of propellers provides easy and reliable fitting of the propellers		✓		✓	✓
All panels, thrusters and accessories have "Plug & Go" wiring for easy, correct and reliable wiring		✓		✓	✓
Anodes outside propellers make them easy to access and change without having to remove propellers		✓		✓	✓
Electromotors designed and rated for actual voltage in boat ensure correct performance and efficiency in real life conditions		✓	✓		
Oil filled gear-leg with long life special seals ensures a long, trouble free lifetime of the thruster		✓		✓	
Hardened spiral-cut gears give you extended lifetime, low noise and more compact gearhouse design		✓	✓		
All bearing and sealing surfaces machined in CNC machines ensures correct tolerances, surfaces and angles		✓	✓		
Slim, hydrodynamically shaped gearlegs minimize resistance and possibility for cavitation			✓		
Galvanic isolation of underwater parts removes chance of serious failure due to current leaks or accidental short circuits	✓	✓			
Intelligent Power Control (IPC) automatically safeguards against inherent risks in high-current equipment.	✓	✓	✓		✓

\*Features might vary between different design series.

# Upgrade your Side-Power



## Go PRO

Upgrade your existing Side-Power to full proportional speed control with extended run-times and less noise.

## 5-bladed Q-prop

- Up to 40% noise reduction
- Complete upgrade kits
- Increased thrust
- Easy mounting
- Great value!

## Go mobile

Free yourself from the dashboard and increase your single handed docking abilities. The receiver accepts up to 4 independent transmitters.

## Footnotes

Note 1)

\* All Side-Power thrusters get their thrust rating from the actual performance you can expect in a boat, at the voltage a normal installation will provide at the thruster. We have chosen to use the net performance at 10.5V/21V, but we also list the effect at 12V/24V for comparison.

\*\* All Battery CCA Ratings are stated at the DIN Rating, multiply by 1.9 to equal the SAE rating at 0°F which is ABYC standard. Cold cranking amperes (CCA) is the amount of current a battery can provide at 0 °F (-18 °C). The rating is defined as the current a lead-acid battery at that temperature can deliver for 30 seconds and maintain at least 1.2 volts per cell (7.2 volts for a 12-volt battery). It is a more demanding test than those at higher temperatures. This is the most widely used cranking measurement for comparison purposes.

Contact you battery supplier/electrical engineer for technical details regarding batteries.

Note 2)

\* Performance thrust equivalent (kgf x 1.4) due to increased leverage, depth of installation and short transverse tunnel.

\*\* Depending on displacement and hull shape considerations

\*\*\*The EX series are not recommended as bow thruster on planing hulls, since the external unit may cause unwanted spray. A tunnel thruster is recommended for planing hulls.

Note 3)

\* The charts shown here are general guidelines and your dealer will be able to give more detailed advice on the thruster size to use for your boat.

Patents: [www.side-power.com/patents](http://www.side-power.com/patents)

Sleipner Motor AS constantly seeks ways of improving specifications, design and production. Thus, alterations take place continuously. Whilst every effort is made to produce up-to-date literature, this brochure should not be regarded as a definitive guide to current specifications, nor does it constitute an offer for the sale of any particular product. All Side-Power products fulfill the requirements of the relevant CE-directives.

Some product images used in this brochure are 3D model illustrations and might deviate in color and texture from actual product.

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# eVision:



- 2016 • €3m budget research mission approved
- 2017 • research tomorrow's e technologies
- 2018 • advanced development & proof of concept
- 2019 • prototype testing & developing advanced in-house production line
- 2019 • launch of electric thrusters with game changing technology & performance
- 2020 • more eVision products every six months onwards




rethinking the future



For more information visit  
[www.side-power.com/evision](http://www.side-power.com/evision)

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